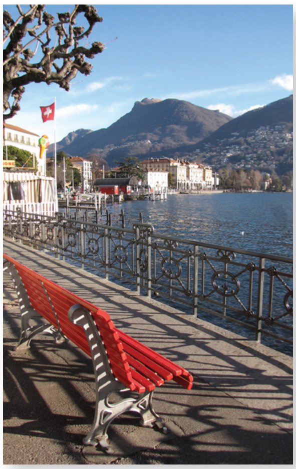
THE SWISS TECHNICAL ANALYSIS JOURNAL

SPRING 2016



Frühjahr
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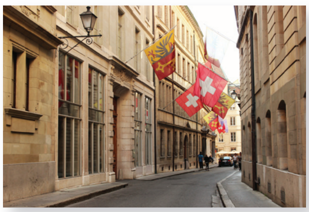

The Swiss Association of Market Technicians

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Willkommen
Benvenuto
Bienvenue
Welcome

From the President's Desk

Dear SAMT Members & Industry Colleagues,

The year started with 2 shocks: first, markets corrected sharply to the downside just to recover as unexpected as they collapsed. Then, in March, the highly regarded **Ian McAvity** suddenly passed away, leaving colleagues of the industry in shock. Read what his colleagues have to say about him in a tribute (page 8).

As with every Journal, we feature articles of industry experts about technical analysis. We hear from **Professor Hank Pruden** on how using the right brain can play an essential role in the thinking mode of chart readers and technical analysts on page 16.

Learn how to develop a moving average cross over system and what to look out for, **Charles D. Kirkpatrick II** will tell you on page 22. If you develop a trading system, don't forget the drawdown you can occur. An idea how to prevent that is described by **Alberto Vivanti** on page 32.

Technical Analysis and quantitative trading both have a lot in common. If you start programming technical analysis, you will know what I mean. Read about "a guide to creating a successful algorithmic trading strategy" by **Perry Kaufman** on page28.

If you want to become a professional technical analyst, we recommend you to join our preparatory course to be held this September, see page 42 for details. And, this year's international conference hosted by IFTA will be held in Sydney, Australia! Last year's conference in Tokyo was a major success and I hope many of you will join us again in Australia.

Sincerely yours,

Patrick

Patrick Pfister, CFTe,

President of the Swiss Association of Market Technicians (SAMT)

THE SWISS TECHNICAL ANALYSIS JOURNAL

Volume Four, Issue 1
SPRING 2016

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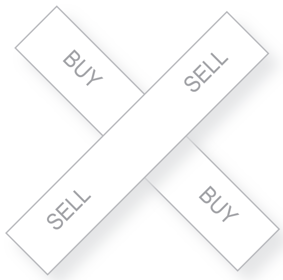

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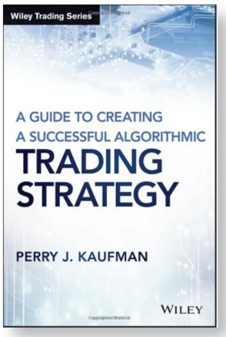

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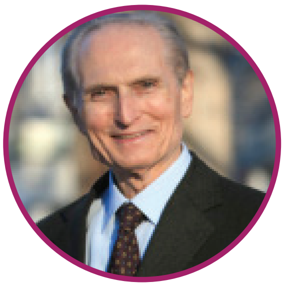
FINDATING

2nd edition

June 23rd, 2016

The high-level Financial networking in GENEVA



Special Guest Speaker

DOMINICK SALVATORE

Professor of Economics

Fordham University in New York

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FINDATING

High-Level Networking Opportunity for the Financial Sector in Geneva

Mario Valentino Guffanti, CFTe

The second edition of Findating, will take place on 23 June 2016 in Geneva.

This prominent event, is organized this year by FinLantern (www.FinLantern.com), the company that managed another well-known annual meeting held in Lugano since 2011: the Lantern Fund Forum (www.LanternFundForum.ch), formerly Lugano Fund Forum. Also Geneva's Findating is organized under the concept of financial networking. Findating members will have an exclusive opportunity to address questions vis-a-vis and discuss the latest trends with experts of world's most recognizable companies, banks, Europe's leading financial regulators, high-net-worth individuals and distinguished guests in a luxurious VIP zone.

The event will finish with a chic soirée. A very special Geneva Forex Event will be organized featuring an exquisite after-party with an extravagant fashion show, removing a veil of secrecy behind the cocktail of glamour, class and pure elegance on a catwalk.

The guest speaker of Findating 2016 will be Dr. Dominic Salvatore, Distinguished Professor of Economics and Director of the Ph.D. Program in Economics at Fordham University in New York City, consultant to the United Nations, the World Bank, the International Monetary Fund, the Economic Policy Institute and author of the world's leading textbook on international economics. His *Theory and Problems of Microeconomics* has been translated into 18 languages, with more than 800,000 copies sold. In all, he has published 54 volumes.

For all the information to participate to Findating 2016, dedicated exclusively to investment professionals, we suggest to look at the website: www.findating.com

Our Association is a partner of the event, and all our members should participate.

Finally, I report a brief abstract from Dr. Salvatore, that describes the topics of his speech that will be held at the event.

World Economic & Financial Prospects

Dominick Salvatore

After six years from the end of the deepest global financial crisis of the postwar period, growth continues to be slow and uneven in advanced countries and falling in most emerging markets. There is even the risk of the world drifting toward a new global financial crisis.

The presentation will examine the dramatic economic events and the crucial financial challenges that the world faces at this juncture. These are: (1) the slow recovery and uneven economic growth in the advanced countries after the recent global financial crisis, (2) the recent dramatic slowdown in the rate of growth in emerging markets (especially in China) and recession in others (such as Brazil and Russia).

Specifically, I will examine the prospects and policies for (1) the United States to go back to its pre-crisis higher rate of growth and for Europe and Japan to avoid deflation and stagnation and (2) China to succeed in restructuring its economy from manufacturing and exports to services and consumption without a further sharp decline in its growth rate, for Brazil and Russia to overcome their deep recession and return to growth, and for India to continue to growth rapidly in a world that is slowing down.

Also, have quantitative easing and negative interest rates become progressively less effective, and maybe even counterproductive, in stimulating growth in advanced countries? What are the prospects that the demand, price, and earnings from primary commodities (especially petroleum) will soon return to the much higher levels of the previous decade? Will emerging market economies be able to reverse capital outflows and service their huge foreign loans in dollars without a deeper economic and financial crisis? Are financial markets exhibiting new bubbles? What would be the economic and financial effects of "Brexit" on the United Kingdom and the Economic Union? Can Switzerland avoid a further appreciation of its currency?

More generally is there a danger of the world drifting toward a new global financial crisis? Are there underlying and more fundamental negative and asymmetric forces at work in the world economy today that makes slower world growth the "new normal" and, even more ominously, is the world may actually be facing secular stagnation?

Fundamental economic analysis is required to correctly analyze the economic prospects facing the world economy. IMF analyses all too often over stress short-run factors at the expense of more fundamental forces at work and this leads to frequent major revisions (and sometimes even reversals) in some its analyses and forecasts. We also should not want to listen to experts who often got it wrong in the past!

www.fordham.edu/economics/salvatore

A Tribute to the late Ian McAvity

On March 15, 2016 Ian McAvity passed away in Toronto, Canada. He was an honorary member of SAMT and annual speaker in Zürich on his way to his annual trip to Zermatt, where he skied for 31 years. Ian, Switzerland will miss you.

Ian receiving his honorary membership from SAMT president, Patrick Pfister

Bob Prechter, Elliott Wave International, Gainesville, Georgia USA

I had the pleasure of knowing Ian McAvity since the 1970s. His advisory, Deliberations, was one of the most-read market letters of the day. Ian found data that other publishers didn't have, and his meticulously crafted charts were a prime feature of his publication. In the early 1980s, Ian and I once teamed with Walter Bressert for a joint promotion.

My wife and I were both immensely cheered each time we would see Ian at a financial conference. Ian was a heavy smoker and champion of the habit, and he would hold court in the hotel bar or at a dinner of peers, regaling his companions with his tales. He had more stories about the characters in this business and its periphery than anyone, and he told them with such gusto that you did not want him to stop.

Ian was a lifelong gold enthusiast, and he helped create several gold and gold-mining investment structures. His latest position, held for nearly the past decade, was as President and CEO of Duncan Park Holdings Corporation. The company stated, "Mr. McAvity has made enormous contributions to its exploration programs in both Nevada, USA and Red Lake, Ontario, through his vast experience in the mining industry."

Bob (left) with Richard Russell and Ian in Carlsbad, CA in October 2010

Bruno Estier, Bruno Estier Strategic Technicals, Geneva

In early 1990 at the time of the founding of AFATE in France, I had invited Ian to be our first foreign speaker. He talked about Gold becoming the new currency, much ahead of the strong move up in Gold. The other reason for him coming to Paris was that he was only one stop from his regular yearly vacations in Zermatt, which he did for more than 30 years. Since that very first meeting, Ian has been a regular speaker at SAMT in both Geneva or Zurich. After I left Paris in 1994 and became President of SAMT (1996-2009), we always invited him and he attracted a nice audience for his yearly market review.

Robin Griffiths, The ECU Group, London

Ian was one of the most knowledgeable people because he actually ran a gold mine and other real investment projects. He had an amazing sense humour, with one-liners equal to the best stand-up comics.

Robin (center) on a panel with the late Ian Notley (left) and Ian McAvity.

Bill Sharp, Bellwether Investment Management, IFTA Past President, Toronto

To my mind, Ian typified the larger-than-life Canadian *bon vivant* who was always in your face schmoozing with a cigarette in one hand and a cocktail in the other. That is when he wasn't in a casino across the road from a convention that he was addressing to attempt to augment his income! I remember well an episode at the 2004 IFTA Conference in Madrid, my first of a 3-year term as president of the Federation, that captured the essence of the man. In the middle of the event, he received an urgent message that his mother had unexpectedly passed away. So he hurriedly packed his belongings and headed for the airport to return home. At the ticket counter, with his computer between his legs, he made arrangements with the agent to catch the quickest flight back to Canada. When he bent down to retrieve the computer, it was gone – stolen by a sneaky thief – along with all the contents of his just completed edition of Deliberations, which he not had time to back-up! That issue was delayed somewhat, but he still managed to get it out to his many devoted subscribers. That was Ian – the consummate market analyst who spent much effort convincing investors on the merits of holding, among other assets, GOLD – his lifelong passion. We'll miss his great humour, his love of life and his passion for the world of investments – especially his insights by way of technical analysis. RIP my friend!

Ron Meisels, Founder, First President and Lifetime Honorary Member of CSTA, Montréal

Ian was a major supporter of the Canadian Society of Technical Analysts (CSTA). His newsletter specialized in proving that technical analysis is a valid tool for forecasting future stock and market directions. He was a champion of gold and gold stocks – since he owned shares in a number of companies he was always close to the action.

His presentations were always first rate, informative, educational, while also entertaining. When bearish, his favorite slide showed two vultures descending on the market, with the caption: "Patience, my ass: I'm gonna kill something".

We will miss his wit, his knowledge and his assistance to younger members.

Ian and John Carder at Steamboat Springs, CO, 2012

John Carder, Topline Investment Graphics, Boulder, Colorado USA

Ian M.T. McAvity was a great technical analyst and raconteur. After using a log scale projection to accurately project the second half of the 1970s bull market in gold, he called for the stock bull market in 1982. He understood that markets were driven by the emotions of people, so he kept his analysis simple, and used comical phrases and stories to help his audiences understand and remember his ideas.

It was my honor to call him a mentor and a true friend who could always make you smile. Not a day goes by that I don't think of him.

Cosima Barone, FINARC SA, Geneva

As a technical analyst of international equity, foreign exchange and precious metals markets, I must say that I have learned so much from him, especially from reading his extensive analysis. As his insights went well beyond mere technical analysis into including economics and politics, I believe that Ian McAvity offered, on top of superior fundamental and technical analysis, immense added value based on solid experience and wisdom. Ian, I miss you!

Cosima with Ian in Geneva, February 2014

Martin Pring, Pring.com, Bradenton, Florida USA

It was always fun to go to IFTA conferences knowing that Ian would be there to share his wit and knowledgeable opinions. He will be sorely missed. His presentations were always stimulating and humorous and his *Deliberations* publication had the best charts in the business-by far. God bless you my friend in your new journey.

An Interview with the late Ian McAvity

Ron William, CMT, MSTA, SAMT Vice President, Geneva chapter and IFTA Liaison hosted an interview in February 2014 with Ian McAvity, of Deliberations on World Markets, Toronto, Canada

Ian McAvity provided innovative technical research with historical studies covering more than 75 years of historical relationships between gold, gold mining shares and US and Canadian equity markets in his newsletter, Deliberations on World Markets. *His technical work included various inter-market relationships, published continuously since 1972. He was a featured speaker at most global gold-related conferences, and major technical analyst societies in Canada, Europe, USA and South Africa at various times over the last 45 years.*

Ron William: Welcome back to Switzerland! On behalf of our Swiss members, it would great to share the extent of your travels here and what you like most about the country?

Ian McAvity: This is my 31st year of skiing in Zermatt. During the talk that I give I start with a picture from table 82 at Chez Vrony, which in my view is the finest view of the Matterhorn. Every year, on a sunny day, I make a point of going off the ski trail to sit on rock to watch the Matterhorn. For me it's the greatest relaxation that I get the whole year. That's why I do the same week in Zermatt. I love the Alps.

In the 1980s, I was very much involved with actually funding the gold exploration in Graubünden, where we made a discovery outside of Disentis. That's the only time that I really got a chance to get into the Alps in the summertime and because I am a mad golfer in Toronto, I try not to travel during the summer. The one place I am determined to return to in Switzerland is Disentis and get into that river and do some gold panning. We identified that there is no question that gold is there. We didn't find commercial concentration at that time. Although, subsequent work has built up to a stage where they could have a mine there. There was an election that was a little controversial about a year ago that slowed the development. There will be a gold mine there sometime in Graubünden. I want to get back into that water with a pan when the water levels are coming down and see if I can get some Swiss gold nuggets. It was because of our gold discovery in the 1980s that they started selling gold washing licences and having a national event.

The Matterhorn from Chez Vrony balcony, Table 82 - Zermatt - 30 Years...

To me, I regard Switzerland as my second home. In fact, I have come very close to moving to Switzerland a couple of times. At one stage during the 1980s I came very close to buying an apartment in Campione. Which is the ideal way to live in tax haven within a tax haven. I didn't do it, unfortunately, and I should have. In those days, Campione was described as "the Poor Man's Monte Carlo." I have a number of friends in Switzerland and spend a lot of time here. I love coming back.

RW: How would you describe the story behind how your career developed within the financial industry?

IM: I dropped out of university after one and a half terms, in 1961. I was at the University of New Brunswick and they had just launched an undergraduate course for Business Administration. I was never a particularly good student. The irony is that I had great visions. I had an uncle that was in the drug business and I was fascinated by medicine and drugs. My worse subjects were mathematics and English. Now I make a living writing about numbers which I don't quite understand. Essentially my grades at school were terrible and basically I finally got into the University of New Brunswick with very poor grades. A second cousin was a chancellor of the university, so that is how I got in. In the first term, I read all of the texts that I was supposed to spend the next four years studying. Because I was always interested in the business portion, I realized that I had already read about one third of the books that they were going to ask me to study for the next few years. The rest of the stuff I didn't really care about and literally I went back and help recreate the business club for this new business school and we had our first function in the early February in 1961.

After that I decided to go into the money business. So I dropped out of school, went back to Montréal and got a job at the Bank of Montréal. So I spent four years in the bank, purely on the premise that if I want to learn about the business, then its best to work in the place where the money comes and goes. So my university education is what I call "the school of hard knocks." I was a bank clerk, loan officer, foreign exchange clerk and a savings account teller. On my first job they saw me come in with my crisp old school new tie and everything else. The manager figured me out pretty quickly and asked me to go back home and get on some jeans. You will be going down to the vault to sort cheques. I did my four years at the bank and through my interest in playing squash got to know a number of partners at Dominick & Dominick in New York.

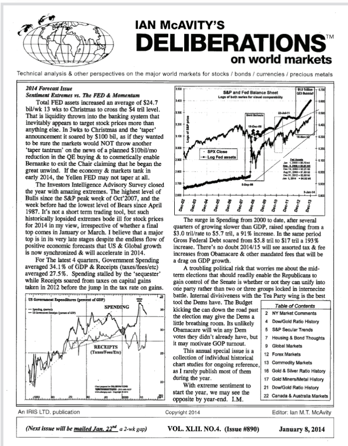
At the bank in 1965 I was handling margin accounts in a very large branch and had a number of large speculative accounts to manage. I became very aware of how violent markets could be. In the summer of 1965, we had a big bubble in the airlines stocks. I pointed out to the bank that Pan Am and KLM were the two hot airlines. Pan Am had convertible bonds that were trading at 400% at par. We were still giving them 10% margin on bonds that were at 400% at premium. That was when I started to keep track of prices and then began to realize that after a strong advance, price can become quite volatile.

> "Linn Chrysler, the president of Chrysler, is my next door neighbor and we are not going to say a negative thing about Chrysler." This was my first introduction to the fact that Wall Street research and real market expectations are quite unrelated to each other.

So I started talking about the markets to the clients. Both they and my squash partners said to me "well if you are interested in markets, to hell with being a clerk, come over to New York." So I went down to join Dominick & Dominick in their research department in New York. I was a junior on the floor and my first job was working with an auto analyst. He did a tremendous job basically saying that 1965-66 was going to be a peak and that auto stocks were going to go down for several years. Everybody owned a new car, a driveway and basically everything was priced in. We completed the report and he involved me in the full process. We sent it upstairs to chairman of the board and waited for his approval and he said "No, change the conclusion." "Linn Chrysler, the president of Chrysler, is my next door neighbor and we are not going to say a negative thing about Chrysler." This was my first introduction to the fact that Wall Street research and real market expectations are quite unrelated to each other. That encouraged me more and more to tracking price. I wanted the fundamentals, but I became very dubious. The draft board called and said you have two choices; go back to Canada or to Vietnam. I was born in Canada and lived in New York. So I went back to Canada and at that point was just a salesman. Having worked in the research department I knew a little about the politics behind some of the reports that came in. There was one fabulous report on Schlumberger, where I knew the analyst and talked about it with him. This is 1966, when Schlumberger was a rapidly growing energy company around the world and you could just see this was going to be a great story. So the report came out and I started to make cold calls to a number of institutional investors. One fellow, who became a very good friend later on, was one of the early ones that really put me on the spot. I gave him the whole sales pitch on Schlumberger and I concluded that at $48 a share, Schlumberger is a fabulous buy. He looked at me without batting an eyelash and said I fully agree.

When you get back to the office, buy us 20,000 shares of Schlumberger at $48. I thought to myself, wow, this will make my year! These were the days of full commission. So I get back to the office, excited as hell. I write the ticket out and say out loud "buy 20,000 shares at $48, I have my first block order!" The trader looks at me and says, Ian what are you talking about? $48? The stock is trading at $65! That's when I started drawing charts, because I had got caught out. Then I began to realize that almost every Schlumberger report we published followed a periodic rise. Once we published the research report, for some reason, it would start to move sideways, even though we said that it was a great story. That's how I literally became a chartist, because I began to sense the so-called fundamentals always followed the price.

Thereafter, I started writing my own conclusions that I would only send to my own clients at Dominick & Dominick. Meanwhile, the other salesmen in the other office would come over and see what I was saying and ask if they could send it to their clients. In those days, there was something called compliance, but no one really knew what it meant. So all of a sudden, I was publishing chart comments for my clients and the other clients in the Montréal offices. Our New York headquarters finally found out about it and realized that one salesman was basically writing his market opinions on their house research. They asked me to put my clients on their mailing list. My response was they were my clients and I would send reports that I want them to read.


IAN McAVITY'S
DELIBERATIONS™
on world markets
Technical analysis & other perspectives on the major world markets for stocks / bonds / currencies / precious metals

2014 Forecast Issue
Sentiment Extremes vs. The FED & Momentum

Total FED assets increased an average of $24.7 bil/wk 13 wks to Christmas to cross the $4 tril level. That is liquidity thrown into the banking system that inevitably appears to target stock prices more than anything else. In 3wks to Christmas and the 'taper' announcement it soared by $100 bil, as if they wanted to be sure the markets would NOT throw another 'taper tantrum' on the news of a planned $10bil/mo reduction in the QE buying & to cosmetically enable Bernanke to exit the Chair claiming that he began the great unwind. If the economy & markets tank in early 2014, the Yellen FED may not taper at all.

The Investors Intelligence Advisory Survey closed the year with amazing extremes. The highest level of Bulls since the S&P peak week of Oct'2007, and the week before had the lowest level of Bears since April 1987. It's not a short term trading tool, but such historically lopsided extremes bode ill for stock prices for 2014 in my view, irrespective of whether a final top comes in January or March. I believe that a major top is in its very late stages despite the endless flow of positive economic forecasts that US & Global growth is now synchronized & will accelerate in 2014.

For The latest 4 quarters, Government Spending averaged 34.1% of GDP & Receipts (taxes/fees/etc) averaged 27.5%. Spending stalled by the 'sequester' while Receipts soared from taxes on capital gains taken in 2012 before the jump in the tax rate on gains.

US Government Expenditures (percent of GDP)
SPENDING
RECEIPTS (Taxes/Fees/Etc)

S&P and Fed Balance Sheet
Logs of both series for visual comparability
SPX Close
Log Fed assets

The surge in Spending from 2000 to date, after several quarters of growing slower than GDP, raised spending from a $3.0 tril/rate to $5.7 tril, a 91% increase. In the same period Gross Federal Debt soared from $5.8 tril to $17 tril a 193% increase. There's no doubt 2014/15 will see assorted tax & fee increases from Obamacare & other mandated fees that will be a drag on GDP growth.

A troubling political risk that worries me about the mid-term elections that should readily enable the Republicans to gain control of the Senate is whether or not they can unify into one party rather than two or three groups locked in internecine battle. Internal divisiveness with the Tea Party wing is the best tool the Dems have. The Budget kicking the can down the road past the election may give the Dems a little breathing room. Its unlikely Obamacare will win any Dem votes they didn't already have, but it may motivate GOP turnout.

This annual special issue is a collection of individual historical chart studies for ongoing reference, as I rarely publish most of them during the year.

With extreme sentiment to start the year, we may see the opposite by year-end. I.M.

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(Next issue will be mailed Jan. 22nd a 2-wk gap) VOL. XLII. NO.4. (Issue #890) January 8, 2014

That led to me leaving Dominick & Dominick. I moved from a big Wall Street house at the end of 1969 to a smaller firm in Montréal called Mead and Co. It was half bond and half stock trading. Two completely different worlds within one firm. Every week they would publish a bond bulletin where the fellow in charge of the bonds would write a few paragraphs on the front page. The two middle pages were just a price list of the bonds that we owned or were trying to buy and the back page was blank. So I asked if I could write a market opinion on the back page. That's when I published the very first currency chart. It was 1970-71, when the currency market was just starting to get volatile. I published a point & figure chart that I had made on the Canadian dollar, with the suggestion that two converging trend-lines suggested that something was about to happen. The best story from that moment, after it was published, I got a call from the Bank of Canada, saying they were looking at the report and wanted to know where I got the data. My response was "from your monthly review!" That led to me writing for the public.

Then two years later, I was hired by a firm in Toronto called Draper Dobie & Co. It had been a mining house and was trying to build an institutional department they asked me to create a technical analysis newsletter. So that's why my flagship newsletter *Deliberatons* starts with the letter "D", because I called it *Draper Dobie Deliberations*. The first issue that I published in 1972, I wrote it all night long and didn't have the title selected. After writing the whole newsletter, I left two inches of space, assuming that I would find a title later on that night. About 6:00 in the morning, I suddenly realize that I still don't have a title. The printer is coming in at 8:00 am and I have a sheet of Letraset to do. Finally, in a panic, I picked up the dictionary and started looking under the letter "D" for a word that might fit what I was trying to do with the newsletter. That's how I chose the title "Deliberations." Three years later I had a big disagreement with the house and at the end of 1974 I took the newsletter and left.

From the world of technical analysis, an interesting sidelight came around that period during my three years at Draper Dobie. The chairman owned an Australian mining group and came across an employee by the name of Ian Notley. He started talking with him about the computer work that we were trying to develop in Canada and showed some of my work. He then literally called me from Australia and said I have this fellow on my payroll down here, why don't I fly him up to Canada and see how the both of you might work together? So Ian Notley flew up to Canada and we spent about three months together and went back to Australia, married his long-time sweetheart and girlfriend Pat and then they moved to

Canada. So in a sense, I brought Ian Notley out of the back woods of Australia, so to speak, at that time, into North America.

We started testing the now popular Coppock Curve on multiple time frames and in essence that what Ian ended up turning into a career. It was smoothed rate of change data. Then I left Draper Dobie at the end of 1974 because I was more interested in writing about longer trends and didn't like the idea the brokers wanted a new stock pick every day. Back then, we were in a bear market and I didn't see the value in saying every day to buy this and buy that, just because the brokers wanted buy tickets. Nobody wanted a sell recommendation. They only wanted to buy. Then later on I had identified that we were approaching a bottom that would serve as an important turning point. But, by this time, the firm is losing money, so they are firing the salesmen and cutting back the firm. To which I said they were doing it all wrong. The whole point about buy low is that you should be getting aggressive, not shrinking the firm. So I had a big fight with the firm at that point and will never forget Ian coming up to me and saying "Now that I'm here and we are finally working together, you're leaving, what am I going to do?" So I said to Ian "keep the dancing shoes on," because he was already giving his own presentations to his own clients and I said "you stay were you are." He stayed and soon afterwards, Draper Dobie merged into what would later become RBC Securities, which later merged into Dominion. He then left and went to set up his own operation in Connecticut, mostly because his wife Pat didn't like the cold weather in Canada. I'm sure she probably learned later that snow also falls in Connecticut. In terms of the evolution of the industry of technical analysis around that time, it was interesting that both Ian and I would become paired up, largely because the chairman of our firm had mining interests in Australia. Most veteran technical analysts later on got to know and respect Ian because he would inevitably make a big contribution to the industry.

RW: What key influences did your collaboration with each other provide?

IM: My key work with Ian was in the context of smoothing daily, weekly and monthly data and overlaying just the curves. You don't need to overlay the price data. I published some charts in 1974 overlaying the Coppock Curve of the London, New York and Tokyo markets. This was to demonstrate a global rotation for most of the periods between the 1950s to the 1970s. In the larger cycles, London peaked first, then on the first failing rally in London, that typically was when New York peaked, and on the first failing rally in New York, the resource markets in Canada and Australia peaked and Asia would also peak. We focused on a lot of the international complex. Ian had been doing something like that and we basically started to do more and more market ratios. This was a lot of the stuff that was later on developed with John Murphy's intermarket analysis work.

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One of my most major exposures was in the US, during 1971-76. The Québec government had just elected the separatist government and there was concern about Canada breaking up. I published a series of charts going back to the 1950s showing that Canada regularly outperformed New York and then underperformed. Today, you would say, a resource cycle vs. an industrial cycle, but we didn't have those labels at that time. Robert Bleiberg, the editor at *Barron's*, saw one of my charts suggesting that it was now Canada's turn to start outperforming and asked me to write an article. So out of the blue, I was asked to write an article for *Barron's* magazine that was purely based on an intermarket-based relative chart of Toronto vs. New York. I was very fortunate, because about two months after the article appeared, the Québec government elected that separatist government, the Canadian dollar got hit, then its stock market put in a bottom and then rose like mad for the next six years. So suddenly I was a genius. That led to a great deal of exposure in the US and by the 1980s led to me being the first Canadian appearing on Wall $treet Week when it had around 12,000,000 viewers. So I received very high exposure within the US market. It was amusing that many Canadians had disregarded me as the crazy chartist in Toronto, while many Americans couldn't understand that I derived from a foreign country. My primary focus was US markets because there was so much price history and market diversity.

RW: In terms of mentorship, who had the greatest impact on your career and what key lessons did you learn from them?

IM: My mentor was a gentlemen that I worked with back in Dominick & Dominick who I think was originally from Estonia. Before Adolf Hitler's rise, he sensed there would be a great deal of trouble coming into Europe. After experiencing massive currency turbulence, he fled to South America. Then for the next 25 years he bounced around from one country in South America to another, because every time there was stability in a country, he would be attracted to go and live there. The surprise was that after about two or three years the currency would go to hell, inflation would take off, social unrest would follow and then he would move to another country. Then finally, in the 1960s, he moved up to Canada and by then he had built up this sense of the social role of the currency in terms of how life would be.

In October of 1967, on the Dow Jones newswire, I was reading the headline that the British pound had been devalued and he had tears streaming down his face. I said to him, "Henry what's the problem?" He replied, "there goes the British commonwealth." "The British Empire is going, it's beginning…" It was from that experience that I spent a huge amount of time learning that to him when the currency is degraded, social unrest will follow and the culture will change. That devaluation of the British pound led to growing pressure to break the central bank gold pool that had fixed the gold price at $35 an ounce. That happened afterwards in March of 1968. But by the time it happened, Henry and I were ready for it. In a sense, he helped make me into a gold bug by getting me familiar with the history of gold as money throughout history. The way I describe gold, is that an ounce of gold is just an ounce of gold. Its real role is acting as a mirror to reflect the value of whatever paper is being offered in exchange. People talk about the price of gold rising to $1,900. In actuality, the dollar fell to $1,900, which then equaled an ounce of gold. So ever since the 1960s, this philosophy has been in tune within me. Moreover, with the devolution of the central bank gold pool, I got very much involved with analyzing gold as a currency. I had already published the Canadian dollar chart, then after 1971 the British pound, the Deutschmark and the Swiss franc, plus some of the other currencies. I was tracking stocks on the one hand and currencies on the other.

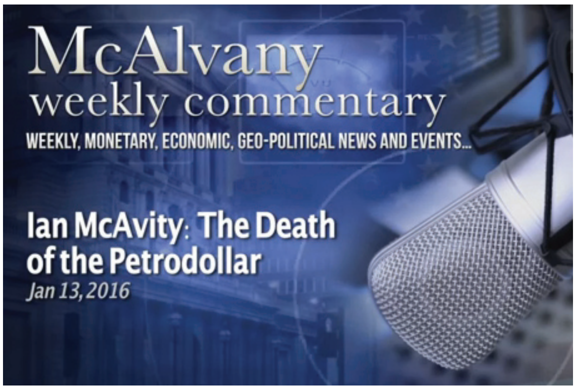
Today everybody thinks that all markets are the same. In those days it was really unusual for anybody in Canada to be thinking about Canadian markets, international markets, currencies and this horrible thing called commodities. From that era, I've argued that gold is not a commodity. Yes, it trades as a commodity, but it's really money, with a monetary element. But this all goes back to my mentor Henry. Many years later, around 1975, Henry showed up at a speech that I gave in Ottawa. He was sitting in the front row and I knew he would be shy and he was a very old man at that point. I began my talk by informing the audience that "he played a huge role in me, the speaker that you have tonight. I wanted him to know it and to talk to him afterwards, because I know he's shy." Moments later, tears were streaming down his face. He was a very emotional fellow.

The other part of that story, John Templeton was the other speaker at the same event. It was quite common to have one local Canadian speaker and one international speaker. Templeton was doing a roadshow, promoting his funds. At that point, I was totally unfamiliar with the whole concept of being a born-again Christian and the holiness of it. I had got to know him a little and on that day gave an extraordinary talk. Then he ended by virtually blessing the crowd. They started every investment meeting with a prayer and ended it with a prayer. I was up as the next speaker, with shoulder length hair and back then, looking like a quasi hippie. Add onto that, my first slide of the presentation, that I've used since the 1960s, of two buzzards sitting on a tree branch saying "patience my ass, I'm gonna to kill something!" So, I'm dying, trying to think what to say as a follow up, after Templeton has just blessed the crowd and wished God's good glory on their investments. How am I going to change this to "patience my ass, I'm going to kill something" and "let's talk about market timing." It came to me literally as I walked to the podium, turning to John and said "John that was an absolutely inspiring talk. I think that you are the only investor that I have ever met who asked for God's help 'before' he owns the stock." Afterwards, he sat there and giggled for a few minutes. He was a wonderful gentlemen. We have crossed paths since and he would regularly remind me of that description of being the only investor that asked God's help before actually owning the stock. It's one of my most favorite recollections of that era.

RW: I wish to read a quote by John Carder, a good industry colleague of yours, which highlights two great qualities of great technical analysts such as yourself. One of the qualities is "the ability to realize when to ignore certain indicators, and when not to. Many investors have lost fortunes thinking that 'This time is different.' A few have made fortunes when they realized that it really was different this time." How would you describe this particular dynamic quality within your market analysis?

IM: Ned Davis is a good friend and as he published a book called *Being Right or Making Money*. Ned's often joked with me that I am the one that prompts him of thinking of the man that would rather be right then make money. I've never been that short-term focused and have never really been a trader. My fascination has always been more with the bigger price swings. John Carder and I have had lots of discussions over the years about why a market was going to do this or that. There's never been a single indicator for me that would say, OK this is why something changes from black to blue or green.

A part of it would probably be from attending the Contrary Opinion Forum in Vermont. I started going in the 1960s. Most of the time in early years, as a guest of the conference, rather than a speaker. I've now spoken at them for around 30 years or so. They've only had eclectic thinkers and I have always been inclined towards contrarianism. There's a good quote that I always remembered from Abe Cohen, one of the most famous developers of sentiment indicators, who created Investors Intelligence and in the 1960s set up the advisors Bulls & Bears. It was a conference in Chicago when a young fellow who was later charged with a crime, stood up and ran through a series of slides saying that he had discovered this perfect indicator of how you trade the 10-day moving average. He proceeded to walk through a chart that was about 4 feet long, section by section across the screen, saying "you buy here, you sell here." He had a nice trading market and for about a one year period this was a fabulous trading strategy. At the end of it he talked about his services and charges and that he would take money to manage. Abe Cohen followed him onto the stage and I'll never forget Abe's opening comment "I wish I was so young and so sure. Now of course, I am so old, I don't trust a damn thing!"



Listen to one of Ian's last radio interviews on January 13.

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Chart Reading in the R-Mode

Henry O. Pruden, Ph.D.

"Turn off' your dominant L-mode of verbal categorizing and "turn on" the R-mode processing part of your brain, so that you can see the way an artist sees.
-Dr. Betty Edwards

First published in 1990, "Chart Reading in the R-Mode" has only now reached the point where it can play an essential role in the thinking mode of chart readers and technical analysts. This article spells out a step-by-step procedure for the analyst to follow in adopting the "R-Mode" of thinking for conducting technical analysis. This article also serves to link together concepts from my earlier SAMT on the DNA of the Market, "The Double Helix" (SAMT Autumn 2014) and forthcoming articles designed to expound upon the "Yang/Ying" duality found in the Ancient Chinese philosophy of the I Ching. The "R-Mode" can serve as a rudimentary approach to applying the "Ying" dimension.

THE EYES HAVE IT! proclaims Bennett W. Goodspeed in his delightful little book, *The Tao Jones Averages*. Such a proclamation ought not to surprise technicians since ours is such a visual world, a world of reading charts with our eyes. So why bother with the obvious fact that we spend our lives reading charts? It is worth the bother because we get into trouble by "seeing what we believe rather than in believing what we see" while going about our daily affairs. We fall into this trap of "seeing what we believe" because we tend to rely too heavily upon the well-schooled left hemisphere of our brain, with its sequential, verbal, logical, rational reasoning. We may state that one picture is worth a thousand words, but somehow the thousand words get in the way and we end up by distorting the picture.

Who among you hasn't slipped up by reading something into a chart pattern that wasn't really there? Could be that you harbored a bearish bias built upon the belief that the market had risen too far and for too long, so you felt it was "entitled to a correction." Hence, the first side-wise pattern on your market chart became a reversal pattern in your mind. Later it turns out to be a continuation pattern.

Or perhaps you heard the tightly reasoned argument of a well-respected technician who claimed that a sharp decline had cleared the air. Afterward the more you looked at the consolidation pattern before your eyes, the more you perceived the outline of a bullish reversal pattern. Only later when the downtrend had clearly resumed did you admit that it was merely a bear-market rally after all.

Or perhaps you succumbed to the most deadly trap of all, when some of your tried and true indicators were no longer reliable, but you didn't yet know it. Thus your indicators, be they momentum, sentiment or whatever, said the market was too overbought (oversold). So when you cast your gaze upon your charts you filtered out from your visual field any graphic data conflicting with your verbal label "overbought" or "oversold." I'm sure that you can add to this list many other more pithy examples of distortion, deletion and generalization from your own experience.

Here is how Goodspeed sums up the issue: "To avoid playing a loser's game, it is essential to use the 'right' brain to see reality in time to avoid tragedy," Our logical "left" hemisphere of the brain is simply not adept at dealing with incomplete or partial information; indeed the left hemisphere interferes by sticking new data into already established categories, and if the data do not fit the left mode, our dominant mode, tends to ignore them. Moreover, our left hemisphere, educated as it is in our Western culture, tends not to challenge assumptions.

A Comparison of Left-Mode and Right-Mode Characteristics

L-MODE	R-MODE
Verbal: Using words to name, describe, define.	**Nonverbal:** Awareness of things, but minimal connection with words.
Analytic: Figuring things out step-by-step and part-by-part.	**Synthetic:** Putting things together to form wholes.
Symbolic: Using a symbol to stand for something. For example, the drawn form  stands for eye, the + sign stands for the process of addition.	**Concrete:** Relating to things as they are, at the present moment.
Abstract: Taking out a small bit of information and using it to represent the whole thing.	**Analogic:** Seeing likenesses between things; understanding metaphoric relationships.
Temporal: Keeping track of time, sequencing one thing after another: doing first things first, second things second, etc.	**Non-temporal:** Without a sense of time.
Rational: Drawing conclusions based on reason and facts.	**Non-rational:** Not requiring a basis of reason or facts; willingness to suspend judgment.
Digital: Using numbers as in counting.	**Spatial:** Seeing where things are in relation to other things, and how parts go together to form a whole.
Logical: Drawing conclusions based on logic: one thing following another in logical order - for example, a mathematical theorem or a well-stated argument.	**Intuitive:** Making leaps of insight, often based on incomplete patterns, hunches, feelings, or visual images.
Linear: thinking in terms of linked ideas, one thought directly following another, often leading to a convergent conclusion.	**Holistic:** Seeing whole things all at once; perceiving the overall patterns and structures, often leading to divergent conclusions.

Source: Edwards, 1979

The R-Mode

A remedy for the mental malady of not seeing accurately what is before our eyes requires that when we first analyze our charts we "turn off' the logical left-hemisphere of the brain and "turn-on" the wholistic, artistic right-hemisphere, otherwise known as the R-Mode (see box). This injunction was essentially the thesis of Dr. Betty Edwards' unusual book dealing with visual education, *Drawing on the Right Side of the Brain*. What we, as technicians/chart readers, need is to reframe our thought processes into what Dr. Edwards calls the R-Mode:

> In contrast to L-Mode, the right half of the brain (for most individuals) functions in a non-verbal manner, specializing in visual, spatial, perceptual information. Its style of processing is nonlinear and non-sequential, relying instead on simultaneous processing of incoming information-looking at the whole thing, all at once. It tends to seek relationships between parts and searches for ways that parts fit together to form wholes. Its preferences are for perceiving information, searching for patterns or relationships that satisfy requirements for visual fit, and seeking spatial order and coherence. It seems undaunted by ambiguity, complexity, or paradox, perhaps because it lacks the "reducing glass" of L-mode, which opts for general rules and

> resists acknowledging ambiguity and paradox. Because of its quickness, complexity and non-verbal nature, R-Mode thinking is almost by definition difficult to put into words. (Edwards, 1986)

The essential trick, according to Professor Edwards, is to shut off the L-Mode so as to allow the R-Mode to become saturated with the visual information before your eyes. In other words, it asks you to gain an alternative state of consciousness so as to view more accurately what is before your eyes.

Here is how you might subjectively experience an R-Mode state of consciousness:

> "Lets review the characteristics of the R-Mode one more time. First, there is a seeming suspension of time. You are not aware of time in the sense of marking time. Second, you pay no attention to spoken words. You may hear the sounds of speech, but you do not decode the sounds into meaningful words. If someone speaks to you, it seems as though it would take a great effort to cross back, think again in words, and answers. Furthermore, whatever you are doing seems immensely interesting. You are attentive and concentrated and feel "at one" with the thing you are concentrating on. You feel energized but calm, active without anxiety. You feel self-confident and capable of doing the task at hand. Your thinking is not in words but in images and, particularly while drawing, your thinking is "locked on" to the object you are perceiving. The state is very pleasurable. On leaving it, you do not feel tired, but refreshed.
>
> Our job now is to bring this state into clearer focus and under greater conscious control, in order to take advantage of the right hemisphere's superior ability to process visual information and to increase your ability to make the cognitive shift to R-Mode at will." (Edwards, 1979)

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Stages in Reaching Chart Reading in the R-Mode

What I now propose to present is a process to follow, a set of techniques for you to incorporate in an effort to bring the R-Mode into a clearer focus and under your control so that your chart reading can benefit from the R-Mode's superior ability to process visual information. The first stage calls for preparing your chart information into a form which will facilitate reading it in the R-Mode. The second stage adapts several procedures from the art of drawing to the art of chart reading in the R-Mode. The third and final stage calls for crossing back over to the L-Mode in order to incorporate your visual insights with your verbal and quantitative procedures.

1. Preparatory Stage: TEC MAN or 3-D Charts

TEC MAN stands for Technical Analysis Machine and/or Technical Manipulation.

TEC MAN is a method of representing technical data so that more of one's senses (sight, touch, sound and smell) can be used in interpreting market data. Market behavior is traditionally represented in a two-dimensional plane, whether in chart books or on computer screens. The three variables which are typically presented are price, time and volume.

The first innovative step of TEC MAN is to represent price, time and volume into three dimensions rather than two. Volume is presented as the third, vertical dimension on a two-dimensional grid of price and time. Human vision is stereoscopic – we see the natural world in three dimensions. Moreover, a three-dimensional representation allows more degree of freedom to manipulate the variable in our brain, to use what Edward de Bono calls Lateral Thinking.

The second innovative step is the sense of touch afforded by the three-dimensional structure of TEC MAN. Something called "haptic touch" or feel creates a visual impression as well. "The brain utilizes different sensations to build up a coherent reality. It does this by combining inputs from various sources, often times correcting for visual distortion by touch and manipulation." (Richard Restak, *The Brain*)

The third innovative step of TEC MAN has already led to the first revision in TEC MAN. Sentiment data was represented by coloring the vertical volume columns blue for bullish and red for bearish. The degree of bullishness vs. bearishness perceived in an array of sentiment indicators would determine how much blue and how much red color would appear on a given volume peg for a given day. This practice led to confusion and cross-purposes be- cause, rather than reinforcing the analyst's conviction in following a strong trend, the appearance of more and more "contrary" color (e.g., more blue in a falling market) would send contrary signals. Indeed over-emphasis on sentiment could encourage shorting into an uptrend or buying into a downtrend. The revised TEC MAN version simplifies the coloring scheme, with any down day on a closing basis painted red and any up day colored blue.

2. Procedures for Chart Reading in the R-Mode

For the first procedure you can use a simple device which works just as easily on a two-dimensional chart as one rendered in 3-D. Simply turn your chart upside down and stare at it. What do you really see? Look at the funny sub-components, then fuzz your eyes a little, look at the chart as a whole. Refrain from concluding what it is and thus labeling it. But if you find yourself drawn toward an inevitable "flash" conclusion, then force yourself to go beyond the first and most obvious answer to at least a second and third alternative answers and label these in your mind as well. Then go away for a while, sleep on your images while the unconscious mind has time to mull over this input. Voilà! The answer you get might not accord with your original supposition. Chances are the answer will be accurate, even if you are forced to reinterpret your indicators.

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The second procedure is one we have all done at various times; this procedure works well with a two-dimensional chart. Again, turn your chart upside down, but this time turn it around and press it against a lighted window or glass so that you are viewing it from the other side of the page. This procedure effectively turns a "bear market" into a "bull market."

The real dividend though is what it does beyond that. Suddenly you'll discover yourself taking in more and different data than you did before. Often you'll see some movement earlier in the trend which you had blocked out, or some support or resistance level heretofore overlooked. Earlier you thought you "knew" it was a "bear" (bull) market and so the L-Mode economized your mental efforts by shutting off a lot of "extraneous" information. By turning things around, and breaking up pre-judgment, you allow the R-Mode to see more of what is really there. The result might be to reinforce your original opinion; the result might also be to revise your option!

When you go beyond these simple techniques, you'll be aided significantly by a three-dimensional chart.

There is the "ground floor" view. You place your eye down at the surface level to observe the profile produced by the varying heights of volume action. From this perspective it is difficult for your mind to ignore the waxing or waning of buying power or selling strength. It is particularly useful to scan the last few weeks, then to visually "scan the horizon" back over several months.

Another approach using 3-D charts I call "the four cardinal directions." For this procedure I've discovered that using a mirror to look back upon the data, which is to have the data reflected back to you from the other side, unlocks a large number of new patterns and combinations. In fact, there are usually so many and they are so confusing that they tend to boggle your mind, which of course is precisely what you want to have for turning off the L-Mode and turning on the R-Mode! A variation of this technique in action would cause you to place your chart against the wall so that you are forced to read it vertically from down to up, or vice versa. Furthermore, if you wish you could place your 3-D charts on the floor, then stand on your desk to gaze down at them as if you were a bird above a forest. And for you night owls, you could slip back into your office after hours with a flashlight in order to contemplate the shadows cast by your 3-D charts.

Further manipulative methods are suggested in Dr. Edwards' *Drawing on the Right Side of the Brain*. For instance, you can focus on the negative or black spaces between your chart recordings; or you can widen or narrow the frame around your chart; or you many even spy your chart through a rolled- up piece of paper or a view finder. All in all you'll discover having her book around as a ready reference will assist you in becoming a more creative chartist.

3. The Cross-Over Stage

Ideally, you'll soak up all of your chart visualizations and then retire from the scene for a period of time to permit incubation. I've personally discovered that "sleeping on it" for an overnight incubation yields good results. More frequently, however, I've found myself "crossing-over" to check out an R-Mode insight with some L-Mode technique. At these times my favorite L-Mode method has been the Elliott Wave Principle.

"... when the R-Mode comes up with a pattern that creates, that stimulates an "a ha!" response, you will often find that the pattern fits with several Elliott principles very nicely."

The Elliott Wave Principle has an appeal to me as the starting L-Mode technique for what I believe is a very sound reason: DYNAMIC SYMMETRY. As the poet Keats once wrote, "beauty is truth, truth beauty," and so it is with Elliott because it rests upon that 3 x 5 proportion which the human eye finds so attractive (Huntley). Thus, when the R-Mode comes up with a pattern that creates, that stimulates an "a ha!" response, you will often find that the pattern fits with several Elliott principles very nicely. Once you've grasped the essence of your holistic chart pattern with the R-Mode, you can with confidence proceed through analytical checklists of technical indicators. Expect to find yourself looping back and forth several times between the R-Mode and the L-Mode.

You finally exit from this three-stage procedure when you are in possession of what Dr. Edwards (1986) calls an "a ha!" sensation. This might occur at first sight, or it may come to you hours, days or sometimes even weeks later. The "a ha!" effect may come to you in words like "It's a top!," or a picture in your mind that shows a clean and clear uptrend, or some combination of auditory-visual-kinesthetic sensations. To help you master this creative process consult such fine texts as Adams, *Conceptual Blockbusting*, de Bono, *Lateral Thinking: Creativity Step by Step*, and Edwards, *Drawing on the Artist Within*.

Summary and Implications

In the *Tao Jones Averages*, Bennett Goodspeed brought to our attention the need to use our whole brain, both the dominant left-hemisphere with its logical and verbal talents and the less dominant, more visually astute, right-hemisphere.

Most of us can cite many cases where we fell prey to "seeing what we believe" rather than "believing what we saw." Yet with the proper use of our right hemisphere we are empowered to see our charts more accurately with more consistency.

Dr. Betty Edwards in, *Drawing on the Right Side of the Brain*, furnishes us with the insight, the rationale and the techniques for making better use of our visually more intelligent right-brain hemisphere or R-Mode. The insight is by tricking our L-Mode into confusion or disinterest, we allow our R-Mode to come forth, enabling us to see our charts more thoroughly and accurately. Dr. Edwards' rationale is based upon the findings of scientific research on the "split brain" or two hemispheres phenomenon plus her own extensive experience with helping and observing her own art students make seemingly dramatic and speedy increases in their drawing ability. By inference, you technicians ought to reach a parallel degree of progress in your ability to read charts accurately.

To acquire the techniques for enhancing your chart reading acumen, I recommend that you proceed through a three stage process. In the first stage you need to prepare your chart data. Ideally, you are in a position to decipher the most information from a chart when it is placed into three dimensions, similar to the author's TEC MAN®. The second stage calls again upon Dr. Edwards' *Drawing on the Right Side of the Brain* for techniques on how to interpret visually in the R-Mode. Then in the third stage you are free to cross over once more to your analytical tool kit in order to integrate your R-Mode with your L-Mode.

To secure your commitment to reading your charts in the R-Mode, I want to emphasize that "seeing" is the lynch pin in a good decision-making strategy. In Book V of his *Investment Psychology Guides*, Dr. Van K. Tharp concludes that the decision strategies of successful traders start with visual information. Thus you'll want a fresh view, uncontaminated with words, to gain an accurate reading of your charts before proceeding on to your more formal technical analysis. By following this course of action you can truly make a single picture worth more than a thousand words.

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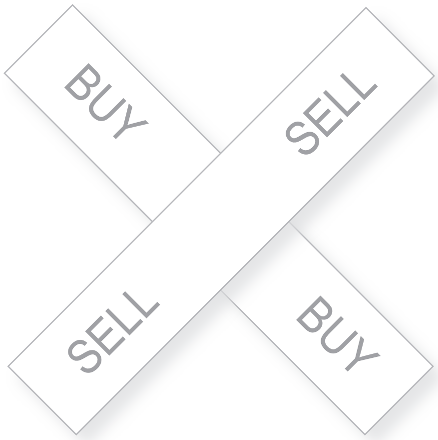


Moving Average Crossovers

Charles D. Kirkpatrick II, CMT

For this study, I demonstrate how to derive the parameters for a moving average crossover model. I will use the S&P 500 Consumer Discretionary Sector daily close over the period January 1, 1990 through April 8, 2016. I will use a filtered, dual, moving-average, crossover system as a model and will optimize, using walk-forward optimization, the parameters for the period mentioned to determine the most robust current system.

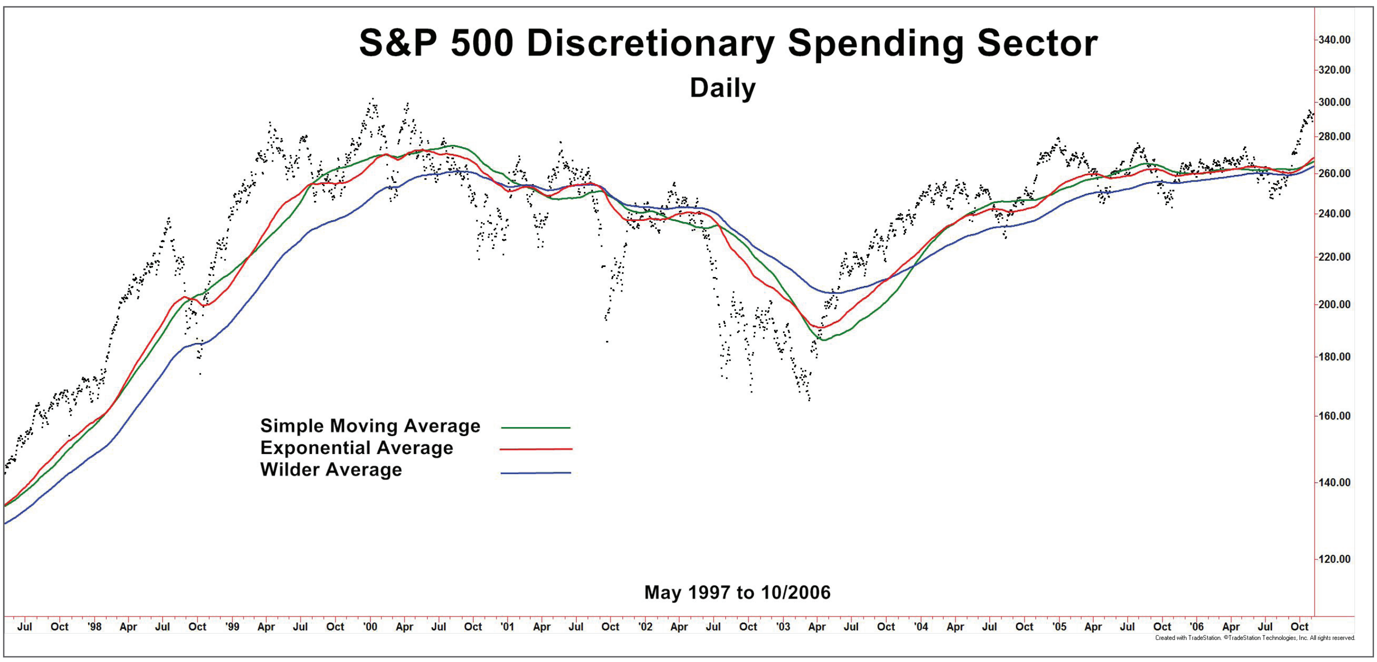
Moving Averages

Security prices fluctuate. We know that. Academics insist that the fluctuations are random. But we know they are not. They are orderly but not perfectly orderly. They tend to travel in trends but not in straight lines. The trends often reverse direction without warning but most times the reversal is gradual. How do we reduce the effects of smaller oscillations in prices to observe more clearly and definitively their trends? We use moving averages.

A moving average is one number that accounts for all the individual numbers in a series of numbers over a specific period. As such, it reduces the effect of each number in the series and reports how the group of numbers is behaving. It "smooths" those individual numbers into a representation of the underlying trend of those numbers. In a chart of prices, it produces a smooth line of prices rather than a jagged one. A change in the direction of the moving average is thus more important than a change in an individual price.

There are many ways to calculate a moving average, the simplest is to add all the prices of over a past specified period and divide by the number of observations, and then repeat this process each day. This is called a "simple moving average" and is often abbreviated as "SMA." However, this method has its shortcomings. First, each individual price is equally weighted with each other price, and when a new price is added the most distance price is deleted. If the deleted price is an aberration relative to the new price, it will

Figure 1. Moving Averages



disproportionately affect the average without adding new information. This is called the "drop-off" effect and can induce the moving average to change direction without an actual change in recent price action. Second, by giving equal weight to each observation, the average fails to emphasize the most recent action and thus adjusts slowly until the old data has been deleted. It doesn't adjust for the most recent action which is likely the most important.

To combat these shortcomings, analysts have used either an "exponential" moving average or a "Wilder smoothing" average. Each has the characteristic of weighting recent prices more heavily and avoids the problems with the drop-off effect. Even better, they are easy to calculate. The Wilder smoothing average (WS) that I prefer (because it is approximately half the speed of an exponential) is calculated as follows:

1. Start with a first average using an SMA of prices over the period N.
2. The next bar multiply the previous bar's WS by (N-1), and add the current price.
3. Divide 2) by N.
4. Continue each bar thereafter with 2) & 3).

An example for a 20-day WS to start with an average of the first 20 days. This is WS1. Every day thereafter multiply the previous days' WS by 19 (20-1) and add today's price. Then divide this total by 20.

System Development

Crossover

Moving averages are used in many ways to give signal. The two most common are the signals derived when the price crosses a moving average, such as the 200-day line, or when a shorter period moving average crosses a longer period moving average, such as the 50-day line crossing the 200-day line. Generally, a busy signal occurs when the shorter crosses the longer, and a sell signal occurs when the opposite occurs.

Crossover Filter

A filter in a system is a means of reducing false signals. For example, on a breakout, a filter of 1% may be added to the breakout level to avoid false breakouts below 1%. In other words, a price would have to breakout 1% above the breakout level to provide a signal rather than just breaking the breakout level alone. This prevents false breakouts of minor amounts from causing failed trades and whipsaws. In crossover signals in moving averages, a filter is generally added to the longer period moving average to reduce false crossover signals. Moving averages, when the market is flat, often cross back and forth without meaning. To avoid the whipsaws that would develop from buying and selling at each crossover, a filter is added such that the crossover must exceed a certain percent of the longer period moving average.

Entry Filter

Because moving average crossovers form over longer periods of time, the market may change while they are forming and allow the system to produce false signals. To avoid this, another filter, called an "entry" filter is added. In the instance of a positive crossover, it is a percent by which the price must exceed the price at which the crossover occurred. In this way, if the trend was beginning to turn down, unnoticed by the slower moving averages, a buy signal would not be generated because the price would likely be declining from the crossover bar. If the price was rising and thus confirming the crossover signal, a more reliable buy signal is given.

Dual

Because trading markets behave differently at tops than at bottoms, we will use a moving average system for each. The means a complete system for buying and one for selling. The parameters for each are usually different to account for the difference in price behavior at tops and bottoms. When the buy system signals, we buy, and when the sell system signals, we sell. Sometimes, one or the other will signal more than once without the other having signaled the opposite. The dual method thus increases profitability by recognizing the different characteristics of market tops versus bottoms.

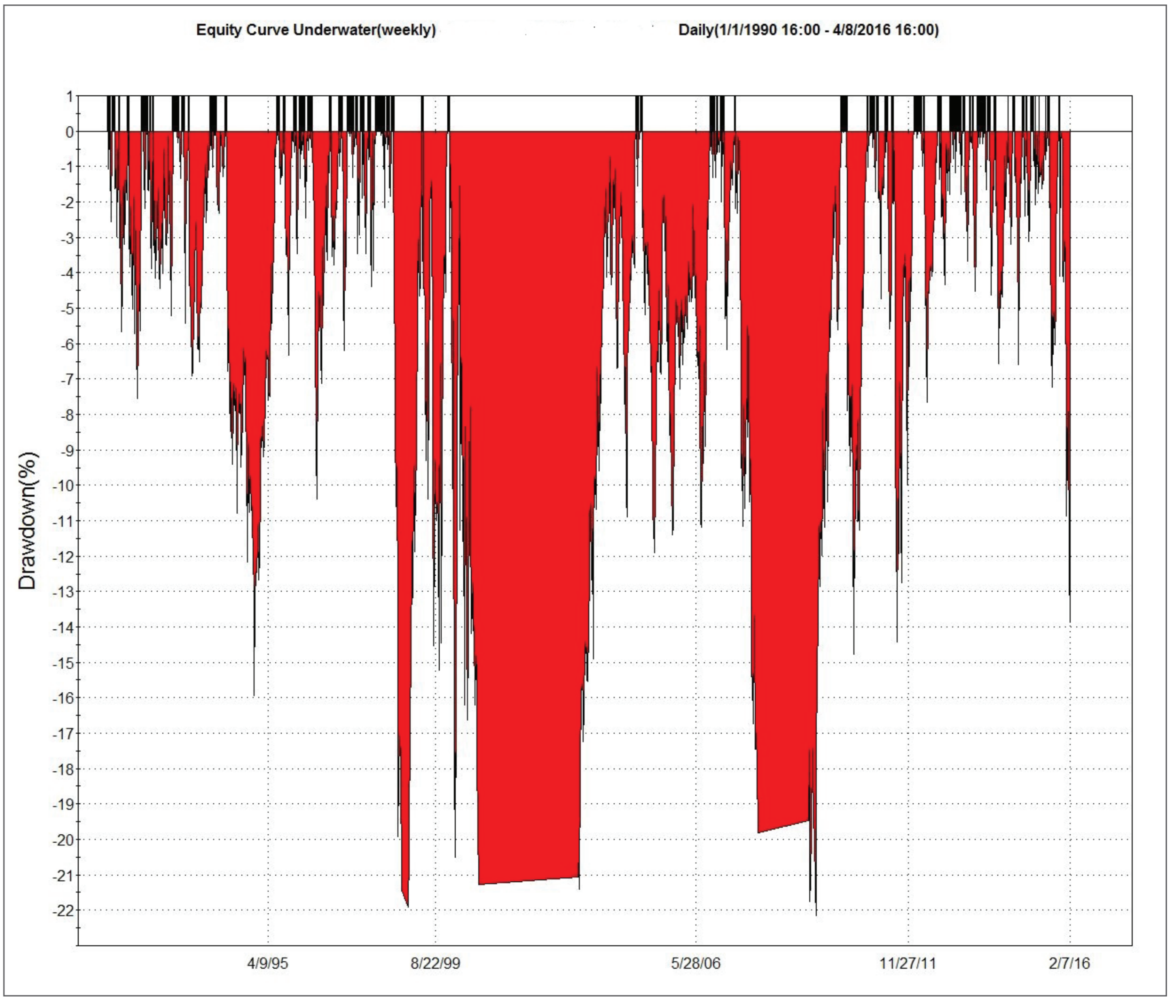
Parameters

The parameters of each system require two moving averages of different periods, one shorter than the other, the crossover filter percent, and an entry percent for both buys and sells. This is a total of eight parameters for the entire system. The optimization is run on the entire system so as to include the complete interaction between the two sets of moving averages.

Walk-Forward Optimization

Walk-forward optimization is a method of determining the optimal parameters of a system to meet a predefined objective such as net profit, drawdown, return on investment, etc. that can be relied upon for a limited time into the future. It simulates reality by optimizing parameters with data (called "in-sample" data) and then tests the best parameters from that known data with unknown data (called "out-of-sample" data) to see if the parameters meet the objective using data the system has never seen. The process is then repeated on additional in-sample and out-of-sample data over a long period to see if the method has validity and what the optimal parameters are for the future. Many years ago, the only way to see if a system worked was to run it live with new data coming in the future. Walk forward eliminates that long wait for results. Of course, if the best parameters fail in the out-of-sample data, the system must be scrapped because its chances of working in the real world are nil.

Figure 2 - Maximum weekly drawdown



Results

Table A shows the best parameters for a daily dual, filtered, moving-average, crossover system in the S&P 500 Discretionary Spending Sector.

The maximum drawdown in percentage is shown in Figure 2. The maximum drawdown (MDD) is the largest percentage loss from any new high. It simulates the largest percentage loss an investor would suffer had he invested at any time during the period using this system. MDD is the true measure of risk. Risk is not volatility; it is the odds of losing money. Traditionally, the MDD is an estimate of the potential percentage risk of the system. When compared to the compound annual growth rate (CAGR), it provides a ratio (CAGR/MDD) that measures the reward/risk of the system and is thus a means for comparing different systems.

The equity curve of the system is shown from January 1, 1990 through April 8, 2016 in Figure 3. The equity curve is a plot of the net profit of the system over the period that it was run. The desired direction, of course, is upward to the right, but the shape of the curve is important as is the width of the oscillations around the curve. In an arithmetic graph, the curve should be a smooth curve arcing upward to account for a stable percentage return and the increased nominal gains as the system profits. Ideally, a semi-log graph should be used because it accounts for the acceleration of profits as the equity advances. An r^2 is often calculated on the equity curve line to see how much the equity vacillates during the climb. The r^2 in this instance is a measure of profit volatility and is useful in determining when to look for a system failure. If profits are deviating from the extended equity curve by more than the r^2, a potential problem exists in the system, and it may have to be closed down or re-optimized.

Table A

Buy fast Wilder average	16 days
Buy slow Wilder average	41 days
Buy crossover filter	2.8%
Buy entry filter	0.3%
Sell fast Wilder average	13 days
Sell slow Wilder average	40 days
Sell Crossover filter	2.9%
Sell entry filter	4.7%
Compound Annual Growth Rate (CAGR)	8.44%
Max Drawdown (MDD)	21.91%
MAR ratio (CAGR/MDD)	0.385
No. of completed trades	4
Percent Profitable	100%
Sharpe ratio	0.20
Trading period	26yr 13da
Time in the market	20yr 28da

Figure 3 – Equity Curve

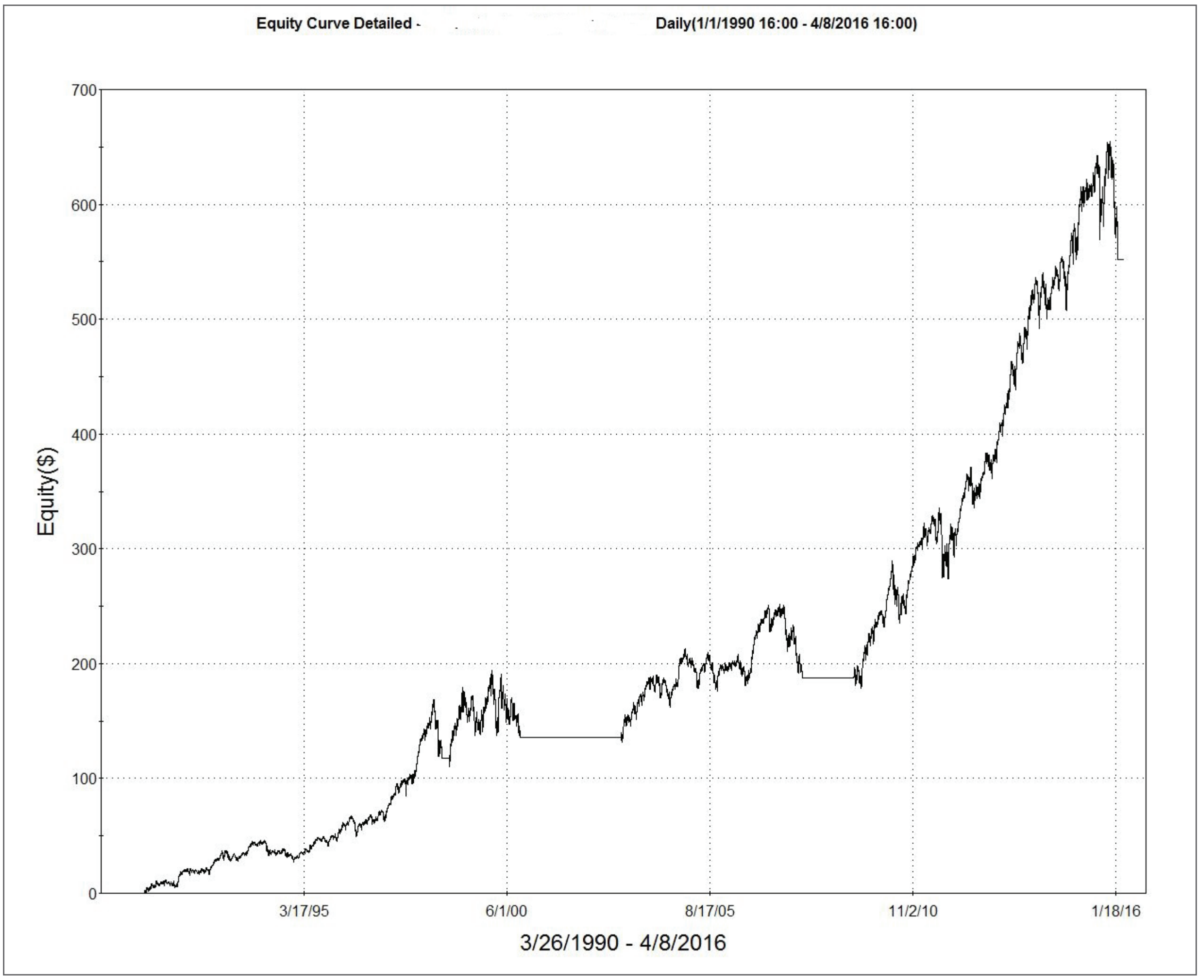


Figure 4 – Buy and Sell signals

The final figure, Figure 4, shows the actual buy and sell signals over the test period. No signal resulted in a loss, but several could have been better timed to take advantage of market conditions.

In sum, we have derived a profitable investment system in the S&P 500 Consumer Discretionary Spending Sector based on daily data from January 1, 1990 through April 8, 2016. This system showed an annual return of over 8%, considerably above the average equity average, but it also contained a large maximum drawdown that reduced its attractiveness for most investors. The study was also limited by the low number of trades (only 4 round trips in 26 years). Generally 30 trades are necessary to have some confidence in the system continuing to perform as it suggests, and thus this system is not robust. This exercise demonstrated the multiple considerations necessary to develop a profitable, low-risk investment procedure and some of the considerations to ponder when arriving at a comprehensive system. It shows that a nominally profitable system can be undesirable for reasons other than profit alone and why the investor must be especially inquisitive and confident in any system before risking funds to it.

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Charles D. Kirkpatrick II, CMT. While retired from the investment management, brokerage and trading businesses, Charlie continues to publish his Market Strategist letter, calculate his award-winning stock selection lists, write books and articles on trading and investing, and is an Adjunct Professor of Finance at Brandeis University International Business School. He was The Technical Analyst's (London) Book of the Year runner up in both 2013 and 2014.

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Book Review

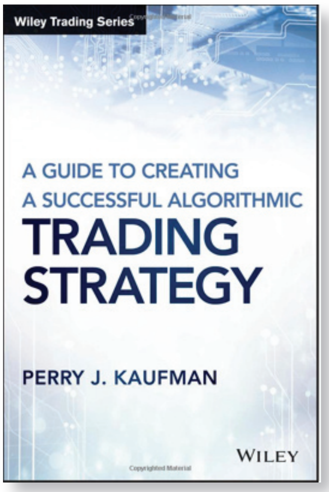
Trading Strategy

A Guide to Creating a Successful Algorithmic Trading Strategy

Book Review & Interview by Mario Valentino Guffanti, CFTe

Algorithmic trading, a systematic method that utilizes mathematical models for making transaction decisions in the financial markets, is a global phenomenon, but the subject is a complex one[1].

Stock exchanges began transitioning from a traditional auction to computerized transactions in the early 1980s. In the late 1980s and early 1990s, Electronic Communication Networks ("ECNs") became increasingly popular for traders looking for more efficient access to the markets.



In 2001, IBM researchers published *Agent-Human Interactions in the Continuous Double Auction*[2]. The research paper found that in a Continuous Double Auction market process, simple software bidding agent-strategies were able to outperform human subjects by a clear margin, setting the stage for the high-frequency trading, an algorithmic trading approach characterized by high speeds, and widely used today in the financial markets.

In 2011 Fixnetix developed a microchip that can execute trades in nanoseconds[3].

Many academic studies have assessed the pro and the cons of Algorithmic Trading and some findings indicate that algorithmic trading improves liquidity and increases access to quotes[4].

Empirical evidence to date generally suggests that high-frequency trading has improved market quality during normal times. What is not clear is the role of high-frequency traders during episodic periods of market crashes and extreme volatility[5]. In Forex markets, scholars find a clear evidence that algorithmic trading causes an improvement in some measures of price efficiency in that market[6].

In a more complex world, where applications of technology can offer the non-institutional investor some definite advantages, knowledge of algorithmic trading can help any trader have a more disciplined and realistic approach to the market. In addition, the individual investor, as Perry Kaufman writes in his new book, and the subject of this article, can do a better job getting diversification and controlling risk than big players because it's easier to manage a small amount of capital.[7]

Perry Kaufman began his career as a "rocket scientist," first working on the Orbiting Astronomical Observatory (OAO-1), the predecessor of the Hubble Observatory, and then on the navigation for Gemini, later used for Apollo missions, and subsequently in military reconnaissance. There is a certain connection between the construction of a trading program and the world of rockets; in fact, the earliest systematic programs used exponential smoothing, a technique developed in Aerospace for estimating the path of missiles. In the early 1970s, he started trading using automated systems while the idea was demeaned by professional traders as "ridiculous", "the market just doesn't work that way", "you can't make money if you don't know the value of the stock"[8]. Now that opinion seems to have been turned upside down.

Perry Kaufman is definitely one of the scholars of reference in the field of technical analysis with regard to trading systems. One of the cornerstones of Kaufman's work has been the book, *Trading System and Methods*, first published in 1978, and considered "the most authoritative and comprehensive work" in the industry.

I reviewed the last edition of this work in our Summer 2013 Journal[9] , and I'm quoting it because this new book represents the other side of the coin: a short and quickly readable book (*Trading System and Methods* was a two kilos book with 1,212 pages, while this new book can be read in a day), that deals with the most important issues needed to develop a successful trading system.

This new book is not a summary of the previous book, and, even if in a first reading the content might seem simple, it is not simplistic. I believe that those who are not familiar with the subject of Trading Systems will find a clear process in order to understand the issue and know how to begin, but those who already have some experience will realize that the work is dense with concepts that come from years of experience and repeated field trials. So, it is true that this book can be read very quickly, but you should read it a second time in order to fix some very important concepts that derive from the author's experience and that might have been overlooked in the first reading.

Let's Look to the Structure of the Book

The first chapter contains the ground rules and the objective of the book: to deal with the most important issues of developing a successful trading system in a short and readable way, containing the critical steps that you could learn over time, often doing them wrong at the beginning. Each chapter contains, in the author's opinion, the best way to deal with the various aspects of creating a trading system.

A schematic process of developing a trading strategy with eight well-defined steps is included. The last chapter (18), the summary, contains all the items that the author thinks you should not forget and which are described in detail in chapters 2 to 17.

THE INTERVIEW

Let's explore now some concepts of the book with the author:

Mario V. Guffanti (MVG): "Hi Perry, it's a great pleasure having you again for an interview about your new book "A Guide to Creating a Successful Algorithmic Trading Strategy".

Perry J. Kaufman (PJK): Thank you, Mario. It's always my pleasure to speak with you.

MVG: "You wrote in your book that in the early 1970s, you started trading using automated systems and the idea was demeaned by professional traders as "ridiculous". Now the opinion has changed but also the situation of the financial markets is no longer the same: however, what has remained unchanged in the use of trading systems?"

PJK: There are two extremes in algorithmic trading that haven't changed, long-term trend following and arbitrage. We always knew that arbitrage was well-suited to automation. You can quickly calculate the difference between two similar products trading in different physical locations and place an order to exploit any large anomalies. On the other end of the spectrum, we understand the logic behind macrotrends, that is, tracking interest rate policy, but the proof of it needed time. Now we can look back over 40 years and see that it not only worked, but it was a robust solution.

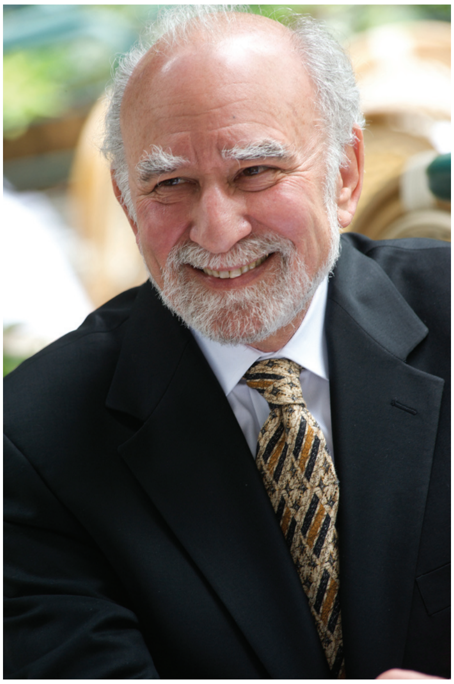
MVG: "What is the reason that brought you to write this new book?"

PJK: I give presentations to groups of investors, academics, and financial associations, often about a specific trading method, portfolio management, or just risk. I was always surprised that, during the question session at the end, I would get questions that were not related to the presentation, such as how do you size a position, and how do you decide if a system is robust? I also get questions from readers of my books. I decided that I needed to write a book specifically dealing with just those questions. Of course, they all related to developing a trading system, which is what I do. So this is my attempt to give back to all those traders who want to know the answers, but don't want to first get an MBA in Finance to understand them.

MVG: "I like your quote that the idea to build a trading system must match your trading personality, your way of trading. In the chapters where you explain how to construct a Trend Strategy and an Intraday Trading Strategy there are a lot of little steps left out of the examples for the sake of simplicity. Your declared goal was to give an outline to follow, and review the most important points: if I gave more than that, I would be creating a system for you, which is contrary to the principle of "teaching a man to fish". From the other side I read in the last times some books about trading systems that use the opposite approach, that is to describe in detail a complete trading system and explain in the meanwhile all the theoretical process: does not it could be in some way misleading for a novice player?"

PJK: I feel strongly that you should not trade a system that you don't fully understand and you have proved its validity yourself. Yes, that takes time. But if you don't do that, you won't have confidence in what you're trading and you'll run after the first serious loss.

I have also found that systems that are given in detail (some that you need to buy) don't work. When I listen to a seminar about a new trading system, then program it myself, I can never get the returns that are advertised. Often, I can't even get a profit. It may be that the system only works on one market, and I need it to work on a minimum of other similar markets, and I am constantly disappointed. But to be a realist, people don't give away a successful trading system. The best you can hope for is to understand the idea behind the method, then put it in your own terms and test it. So I listen to webinars seeking ideas, not specifics. From my view, ideas are the valuable commodity for a developer or trader.



MVG: "You wrote that short-term trading systems can be more complex than trend following: can you explain why?"

PJK: You can make money with the simplest long-term trend following method, either a moving average, a breakout, or a linear regression. The only difficult part is accepting the risk of holding the same position while it moves up, then down, then up, and down again. Basically, no matter what features you add, it's simply a long-term trend.

With a short-term system you're dealing with a different dynamic. There are no trends, just noise and various short-term bursts of momentum. And those bursts are erratic in length. Even the simplest short-term system requires that you have good entry timing, because the trade isn't held long, and profit-taking, because market noise means that you don't have confidence that prices will keep going in the same direction.

Then you need to pick the markets to trade. The best ones tend to be the equity index markets because they have the most noise; the worst are the short-term interest rates, which are trending. So there are more moving parts in a short-term system just to get started.

MVG: "Speaking about trends, you say that trends exists because there is no consensus among investors and also that it's getting harder to find a trend. How can Algorithmic trading help us with these topics?"

PJK: It's harder to find the trend because most markets are getting noisier. If you are a quant, extracting the "signal" in a noisy price series takes more data. So we need to wait longer to tell whether the trend has really started. The same is true at the end of the trend. It needs to make a bigger turn in the opposite direction to tell that it's over. If you use a longer-term trend, say 80 days or more, you'll still find it successful, but the net return will be smaller than it was 20 or 30 years ago. If it takes you longer to get in and longer to get out, the net gain is smaller, but it's still a gain. In my opinion, trying to identify a trend using a chart and ruler is going to be a much more uncertain process.

MVG: "Why did you dedicate an entire chapter to Futures?"

PJK: I love futures! That's where I started. And it has leverage, which makes it easier to manage risk. I also like them because they represent entire industries -- soybeans, interest rates, equity index. Futures have very different price moves than stocks because they move on significant events, such as supply disruptions, Fed announcements, and economic reports. Stocks are more difficult because any company can vary from the industry due to margins, management, legal costs, and scandals. That makes price movement less certain, not something you can anticipate.

My recommendation is that an investor should participate in both markets because they offer important diversification.

MVG: "You think that anxiety is more important than potential gain. You'll never realize the gain if you can't stay with the program. A great part of the book is dedicated to the topic of managing the risk and there is a chapter entitled "I don't want no stinkin' risk". What is your forma mentis on this topic?"

PJK: I think there is an evolution in the way investors see risk. When they are young they don't care much, but as they age and get experience, risk takes on a much bigger role. The most important concept is that you can't eliminate risk. If you have a trading system that has great gain and very low risk, look again. The risk has to be proportional to the gains. Of course, some will be better and some worse, but "no risk" is not one of the combinations. You can also move risk around, remove it in 2008 and it shows up in 2010. My advice here is "don't trade a system until you have seen the risk." For example, a system that returns 8% annualized will probably have a drawdown of at least 16% over its history. If you don't see that, the history isn't long enough. It's only when you know the risk that you are prepared to trade a system and stay with it.

MVG: "You dedicated your 5th edition of "Trading Systems and Methods" to your wife Barbara, and in the preface you thank Barbara for her everlasting support that is only enhanced by rolling her eyes whenever you say that "this is my last book, ever." Any comments about that?

PJK: Mario, if I make a comment about that, she won't talk to me for a week.

A Guide to Creating a Successful Algorithmic Trading Strategy

Perry J. Kaufman

John Wiley & Sons - NJ, 2016, 177 pages

1 Algorithmic Trading could be related to decision making strategies, the topic of this article, but involve also other techniques as algos to working large orders to minimize market impact or strategies which are more specific with High Frequency Trading, like monitoring a flow of quotes to identify information not yet published in the news, or sending millions of quotes to an exchange, but getting executions only on 1% or less.

2 *Agent-Human Interactions in the Continuous Double Auction* - Rajarshi Das, James E. Hanson, Jeffrey O. Kephart andGerald Tesauro, Institute for Advanced Commerce, IBM T.J. Watson Research Center - The Proceedings of the International Joint Conferences on Artificial Intelligence (IJCAI), Seattle, USA (August, 2001);

3 http://blogs.wsj.com/marketbeat/2011/06/14/wall-streets- need-for- trading-speed- the-nanosecond- age/

4 *Does Algorithmic Trading Improve Liquidity?* - Terrence Hendershott, Charles M. Jones, And Albert J. Menkveld - August 30, 2010 - Journal of Finance, Vol. 66, pp. 1-33;

5 *High-Frequency Trading: Review of the Literature and Regulatory Initiatives Around the World* – K. Chung, A. Lee - December 1, 2015 - Asia-Pacific Journal of Financial Studies;

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7 P. J. Kaufman – *A Guide to Creating a Successful Algorithmic Trading Strategy* – Wiley – 2016 – p. 65;

8 P. Kaufman, op. cit. p. 2;

9 M. V. Guffanti - A Book Review & Interview with Perry Kaufman – The Swiss Technical Analysis Journal – Summer 2013 ed. – pp. 11-15;

Mario Valentino Guffanti, CFTe is a Financial Advisor, Certified Financial Technician and Researcher and also a lecturer in Technical Analysis. He is the Vice President of the Swiss Italian Chapter of the Swiss Association of Market Technicians (SAMT).

Around the World in Ten Global Sectors

Alberto Vivanti

If we are looking for a way to participate in the global growth of equity markets worldwide, well, there isn't a simpler solution than choosing a tracker of a global index, such as the well-known Morgan Stanley World or the S&P 1200 Global Indexes.

Both provide efficient exposure to the global equity market. The Morgan Stanley World Index® is a market capitalization-weighted index that is designed to measure the equity market performance of developed markets worldwide, through the performance of the world's largest companies. The S&P 1200 Global® captures approximately 70% of global market capitalization, and is a composite of seven major indices, such as the S&P 500® (US), S&P Europe 350, S&P TOPIX 150 (Japan), etc.

Both are tracked by some highly liquid ETFs and available to investors across the most popular stocks markets worldwide. The past figures of a passive strategy based on such indexes (Chart 1 and Figure 1) confirm, once again, that even a global worldwide diversification is not able to reduce the intrinsic market volatility: annualized volatility close to 20% and drawdowns that, during the 2007/2008 bear market, had been not far from 60% (calculated with weekly closes) are hard to sustain even for risk-oriented investors.

Chart 1 – 100 dollars invested in the best known world indexes. Dividends reinvested.

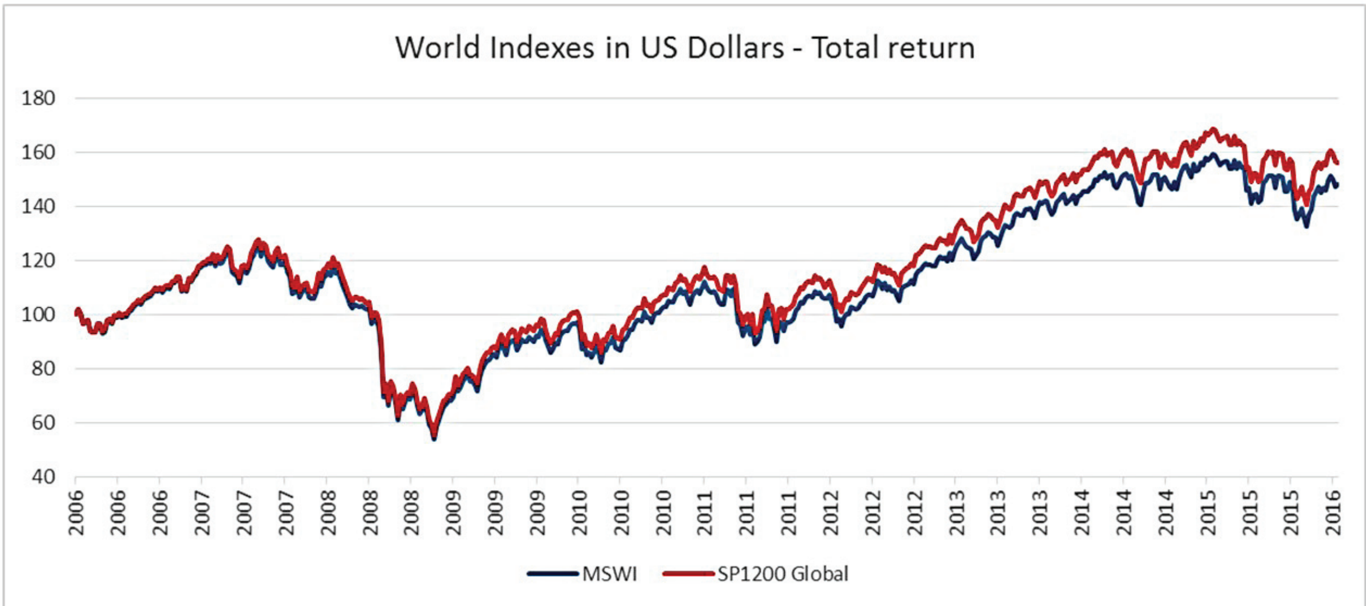


Figure 1

Historical returns 5.2006 / 5.2016	Compounded yearly rate of return	Standard Deviation annualized	Maximum drawdown
Morgan Stanley World Index	4,0%	18,9%	-57,1%
S&P 1200 Global	4,6%	19,2%	-56,8%

Figure 2: Geographic weightings by sectors in the Morgan Stanley World Index

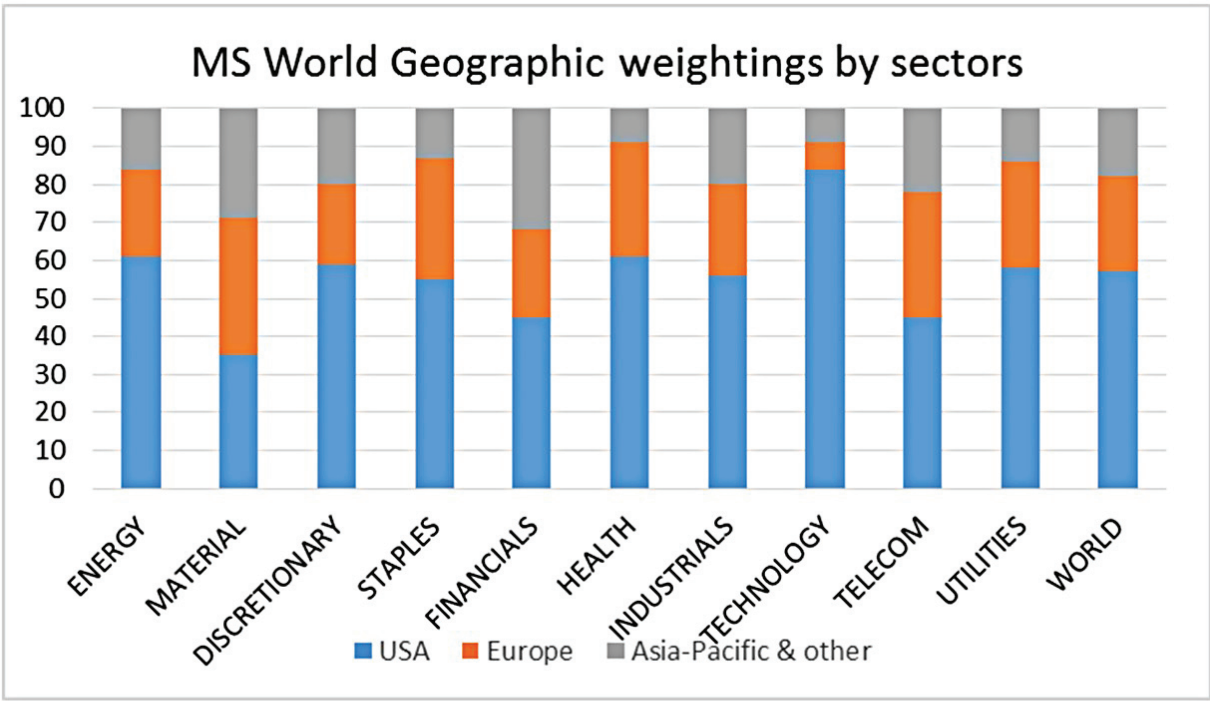
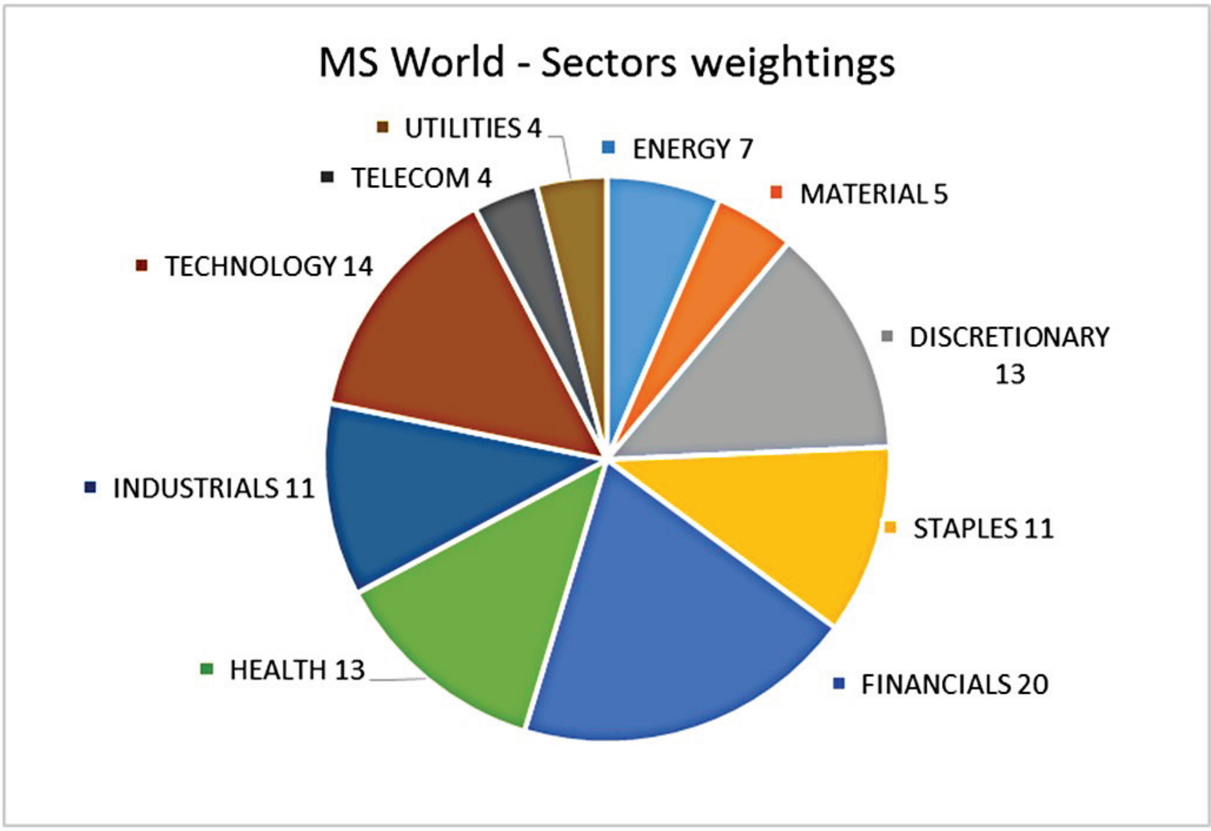


Figure 3: Sectors weightings in the Morgan Stanley World Index



A major portion of the Morgan Stanley World Index (MSWI) is comprised of stocks from the United States and Europe. With regard to the sectors breakdown, Financials represent the biggest portion (20%) followed by Technology (14%), Health Care (13%), Consumer discretionary (13%), Industrials (11%) and Consumer Staples (11%). Four sectors are significantly less represented: Energy, Materials, Utilities and Telecom, all joined together, equal the 20% of the largest Financial sector.

Such discrepancies are due to the market value of the components. In the MSWI, like any other capitalization-weighted index, the single weightings of the stocks depend on their market value (number of free floating shares multiplied by their market price) that creates a sector's imbalance.

The ten sectors previously mentioned are classified according to the Global Industry Classification Standard (GICS), a standardized classification system for equities developed jointly by Morgan Stanley Capital International (MSCI) and Standard & Poor's. The GICS methodology is used by the MSCI indexes, which includes domestic and international stocks, as well as by a large portion of the professional investment management community.

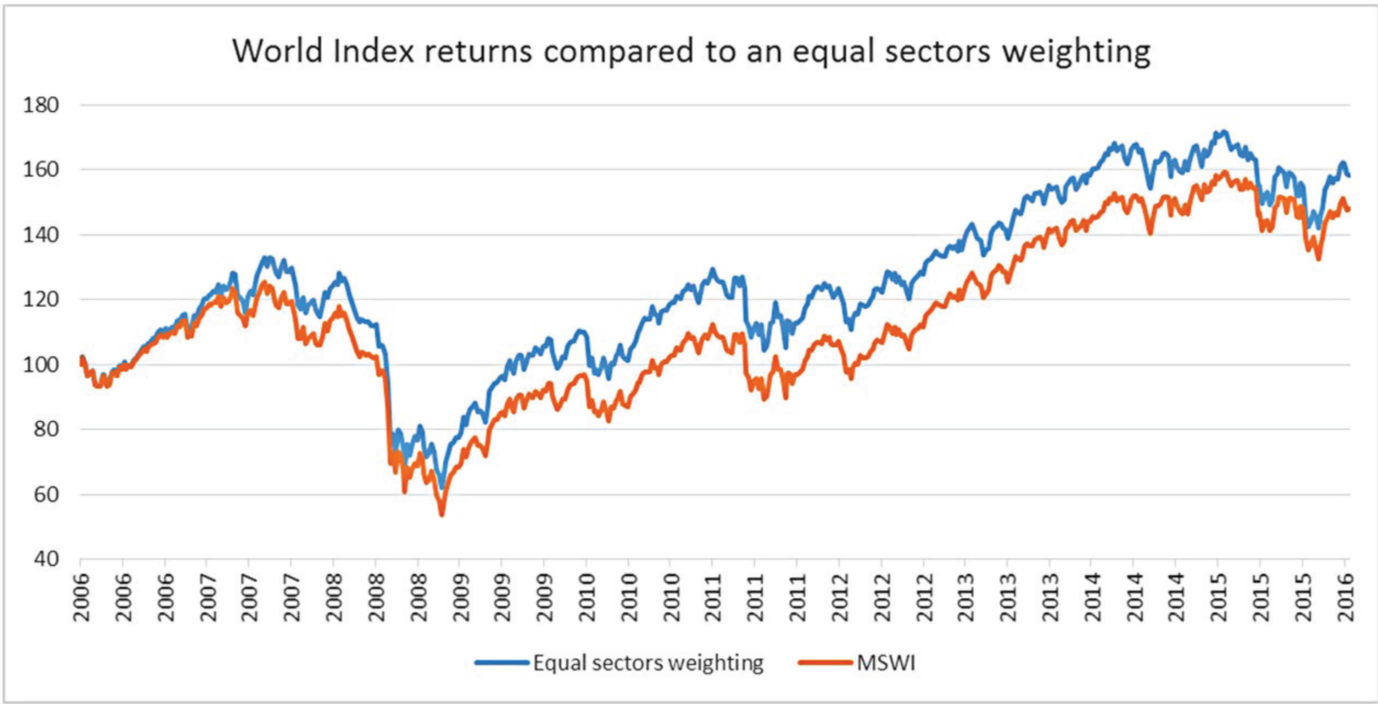
Each single sector produced very different returns over time. Their historical performances, for the last ten years, are shown in Figure 4.

Figure 4. Yearly returns by GICS sectors. Period considered April 28th, 2006 – May 13th, 2016.

	MSWI world Index	Consumer Discret.	Consumer Staples	Energy	Financials	Health Care	Indu strials	Informat. Technolog y	Materials	Telecom	Utilities
2006	9%	10%	14%	2%	11%	7%	6%	4%	9%	22%	24%
2007	9%	-2%	20%	35%	-6%	5%	19%	14%	39%	28%	23%
2008	-43%	-44%	-26%	-45%	-55%	-24%	-47%	-46%	-54%	-37%	-33%
2009	34%	48%	26%	40%	41%	23%	34%	62%	76%	18%	13%
2010	12%	25%	14%	11%	7%	2%	24%	11%	22%	12%	0%
2011	-6%	-5%	8%	-3%	-19%	9%	-10%	-4%	-21%	0%	-5%
2012	15%	22%	14%	1%	28%	17%	15%	14%	10%	8%	2%
2013	27%	36%	19%	15%	22%	36%	30%	28%	-1%	24%	11%
2014	7%	5%	8%	-12%	4%	19%	2%	18%	-7%	0%	16%
2015	-1%	4%	4%	-21%	-5%	6%	-4%	2%	-15%	-3%	-10%
2016	0%	-3%	5%	7%	-6%	-5%	2%	-4%	6%	5%	8%

YCROR	4,0%	6,4%	9,6%	-0,2%	-2,0%	8,4%	4,0%	6,3%	0,8%	5,8%	3,5%
Volatility	19%	20%	14%	26%	26%	16%	21%	19%	27%	17%	16%
Mad D.down	-57%	-59%	-39%	-56%	-75%	-38%	-63%	-54%	-67%	-49%	-47%

Could an equal weighting among sectors reduce volatility and improve the quality of returns? The answer is no. In the last ten years, if we had committed our investment equally among the ten sectors of the world index, by regularly rebalancing the 10% stakes among the ten corresponding sector indices, we would have had only a slightly better return just because the relatively heavy-weighting financials did poorly over the decade, while volatility and drawdowns were almost the same, very close to the benchmark. The figures are shown in chart and figure 5.



	MSWI world Index	Equal sector weight
2006	9%	11%
2007	9%	17%
2008	-43%	-41%
2009	34%	38%
2010	12%	13%
2011	-6%	-5%
2012	15%	13%
2013	27%	22%
2014	7%	5%
2015	-1%	-4%
2016	0%	1%

YCROR	4,0%	4,7%
Volatility	19%	18%
Max D.down	-57%	-53%

Chart and figure 5: The results, as per May 2016, of an investment made in 2006 in the Morgan Stanley World Index (in US dollars, net return) compared to an equally distributed investment among its ten main sectors (constant rebalance).

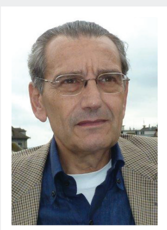
There isn't any significant improvement, especially in terms of volatility and drawdowns.

In order to reduce such a high volatility, and to contain potentially unbearable drawdowns, the dear old trend-following approach proves to be once again a sound solution. In the 2014 Autumn edition of *The Swiss Technical Analysis Journal*, I had submitted a study based on a trend following approach to dynamic allocation in the European equity market.

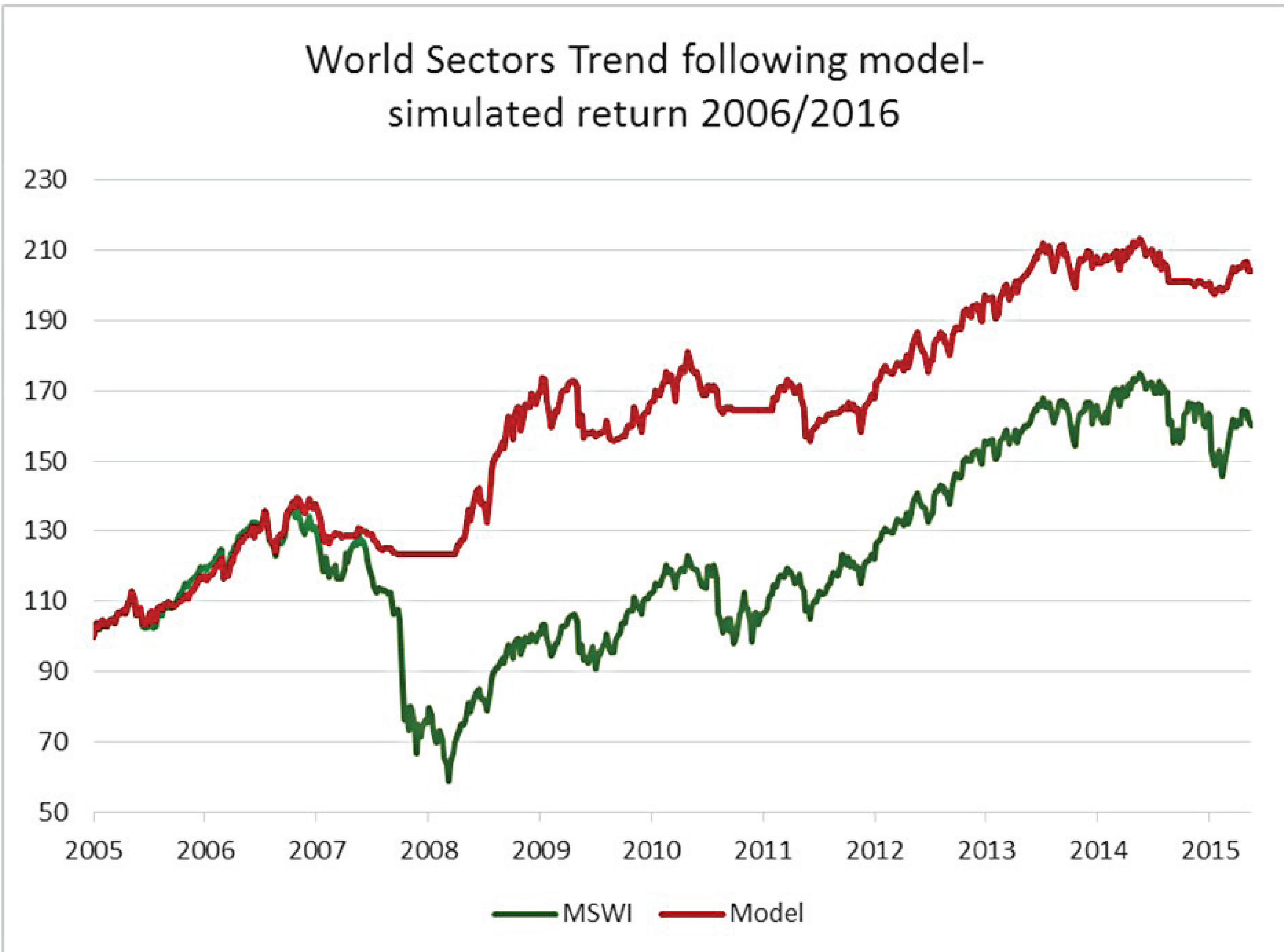
Such approach is based on a trend analysis of the sector indices. Then, a portfolio is set by allocating fixed stakes to each single sector index that shows a positive trend. If one sector's trend is negative, then its reserved portion is maintained in cash and, by consequence, the global equity exposure is reduced. If the trend indicator is negative for all the sectors, then the global equity exposure will equal zero, a wise decision during bear markets, and this explains the drastic reduction of volatility and drawdowns. All the investment decisions, in this back test, are taken at the end of every calendar month.

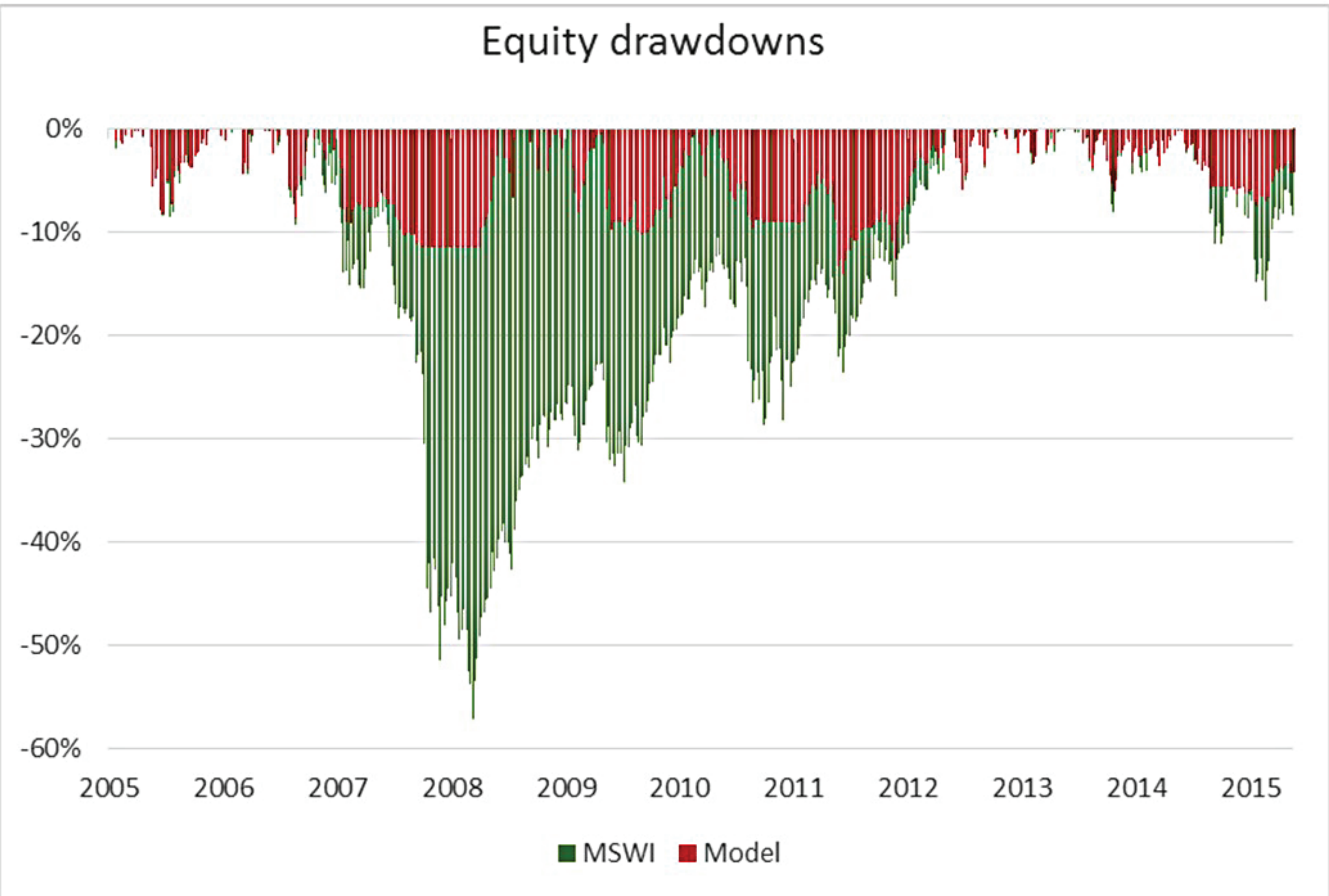
The methodology proves to be robust, providing appreciable results in back testing on the ten main sectors of the world index. Chart 6 compares 100 dollars invested in this method, with a buy-and-hold approach. Not just the potential return is higher, but what is remarkable from my point of view, the sharp reduction of risk: a 10% annualized deviation, compared to the 18% of the benchmark. A maximum drawdown of 14%, nothing to do with the -57% of the Index in 2007/2008.

Chart 6: 100 dollars invested through a dynamic allocation model based on single sectors trends, compared with a buy-and-hold investment in the Morgan Stanley World Index.



Alberto Vivanti, Independent analyst, founder of Vivanti Analysis in 2003. Alberto is a technical and quantitative analyst since the early 1980's, with a sound experience as an asset manager with Swiss Institutions. Author of a technical newsletter, lecturer for institutions and instructor in Technical Analysis courses in Switzerland for the IFTA Certification, author of articles and books has been co-author of a book with Perry Kaufman. Alberto chaired the IFTA conference held in Lugano in 2006. He has been an official speak at the IFTA Conferences 1998 in Rome and 2006 in Lugano. Alberto is Vice President of the Swiss Association of Market Technicians, representing the Chur and Liechtenstein Chapter.


World Sectors Trend following model-simulated return 2006/2016
230
210
190
170
150
130
110
90
70
50
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
MSWI
Model


Equity drawdowns
0%
-10%
-20%
-30%
-40%
-50%
-60%
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
MSWI
Model

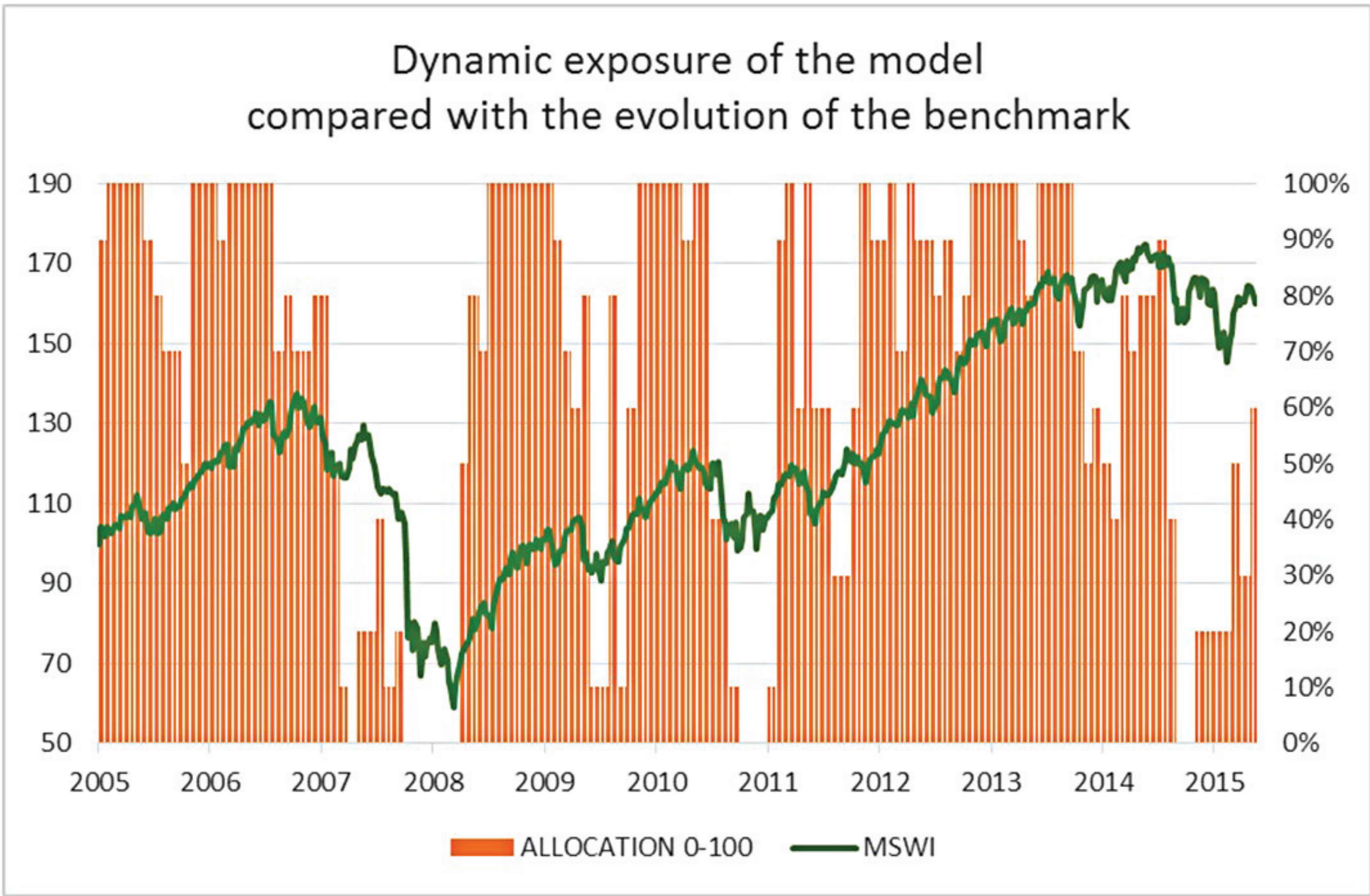


Chart 7: the dynamic allocation of the model tends to reduce the global exposure during the barish phases of the market. In extremely negative trends like 2008 or mid 2011, but also in the early weeks of 2016, the model reduced the exposure to zero.

	MSWI world Index	Model
2006	20%	17%
2007	9%	17%
2008	-43%	-11%
2009	34%	38%
2010	12%	-2%
2011	-6%	-2%
2012	15%	2%
2013	27%	18%
2014	7%	6%
2015	-1%	-3%
2016	-2%	2%
YCROR	4,6%	7,1%
Volatility	18,8%	9,9%
Max D.down	-57%	-14%

Figure 8: returns of the simulated strategy compared to those of the benchmark

SAMT BOARD OF DIRECTORS & OFFICERS

SAMT
The Swiss Association of Market Technicians
Established 1987

The Swiss Association of Market Technicians (SAMT) is a non-profit organisation (Civil Code Art 60ff) of market analysis professionals in Switzerland, founded in 1987. SAMT is a member of the International Federation of Technical Analysts (IFTA).

Technical analysis is the study of prices and markets. It examines price behavior on an empirical and statistical basis. It extends to the study of all published information on price trends, volatility, momentum, cycles and the inter-relationship of prices, volume, breadth, sentiment and liquidity. A comprehensive understanding of technical analysis requires a knowledge of statistics and pattern recognition, a familiarity with financial history and cycles.

SAMT encourages the development of technical analysis and the education of the financial community in the uses and applications of technical research and its value in the formulation of investment and trading decisions. SAMT has a wide range of activities including:

- Organising meetings on a broad range of technical subjects encouraging the exchange of information and knowledge of technical analysis for the purpose of adding to the knowledge of its members.
- Technician (CFTe) exams and the Masters level degree Master of Financial Technical Analysis (MFTA) in Switzerland. These exams are controlled by IFTA.
- Developing CFTe preparatory courses which are given twice yearly in advance of the IFTA exams.

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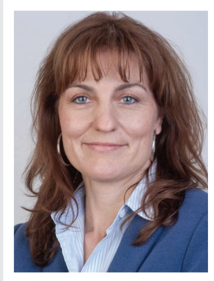

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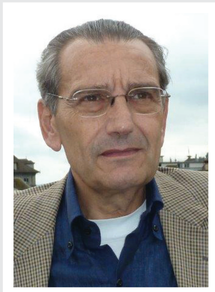

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THE SWISS TECHNICAL ANALYSIS JOURNAL

The Swiss Technical Analysis Journal is a quarterly publication established by The Swiss Association of Market Technicians (SAMT). It is compiled by a committee of SAMT colleagues. The Swiss Technical Analysis Journal is essential reading for academics, students and practitioners of technical analysis in all arenas. It is an excellent reference source for anyone interested in technical analysis, containing a wealth of resource material.

Credibility And Recognition

The Swiss Technical Analysis Journal has original contributions from its members covering developments in technical analysis in global markets. The Journal's aim is to reach leading practitioners and students of technical analysis throughout the world.

The Swiss Technical Analysis Journal is a professional resource. Its online publication on the SAMT website will make its work available as a future resource to the community of technical analysts.

Topics

SAMT is seeking papers that cover developments impacting, either directly or indirectly, on the field of technical analysis; they may be drawn from such areas as:

- Basic market analysis techniques
- Indicators—sentiment, volume analysis, momentum, etc.
- Global and intra-global technical analysis
- Styles of technical analysis
- Data
- The changing role of technical analysis in the investment community.

We would especially like to see contributions that draw from areas not previously examined, and/or topics tangential to technical analysis.

The above list is just a guide and should in no way be considered restrictive. We wish to make the Journal open to new and innovative ideas from all areas of technical analysis and those that connect with it.

Submitting Contributions

Submission of contributions to mario.guffanti@samt-org.ch

Language

Contributions must be submitted in English with British grammar required.

Writing Style

Papers should be written in a thesis style.

References

All texts referred to in the paper must be appropriately referenced with a bibliography and endnotes (footnotes will not be accepted.)

Responsibility for the accuracy of references and quotations is the author's. We expect the authors to check thoroughly before submission.

All references are to be included as endnotes. No separate list of references or bibliography should be provided.

Figures, Charts and Tables

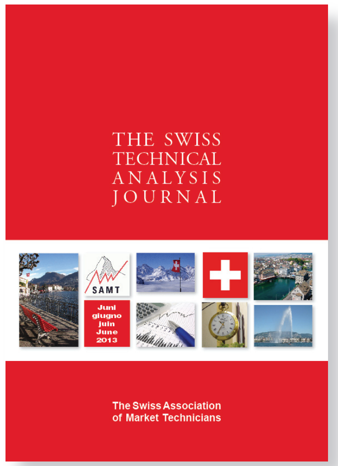
Illustrations and charts must be referred to by Figure Number and source (when applicable). Tables must be referred to by Table Number and source.

Length of Contribution

Papers should be approximately 1,200 to 3,000 words, with supporting graphs and charts.

Format

We ask for submission in MS Word or other text format. PDF format will not be accepted. Charts and graphs may be in gif or jpeg, but we ask that authors also keep a tif format in case it is required.



Material deadline for the Autumn 2016 issue

15 October 2016

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Pre-payment by wire transfer is required for all ads. Bank details will be provided upon request.

SAMT MEMBERSHIP

SAMT Disclaimer

The Swiss Association of Market Technicians (SAMT) is a not-for-profit organization that does not hold a Swiss Financial Services License. It is the aim of the SAMT to promote the theory and practice of technical analysis, and to assist members in becoming more knowledgeable and competent technical analysts, through meetings and encouraging the interchange of materials, ideas and information. In furthering its aims the SAMT offers general material and information through its website and publications therein.

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SAMT
The Swiss Association of Market Technicians
Established 1987

SAMT encourages the development of technical analysis and the education of the financial community in the uses and applications of the technical research and its value in the formulation of investment and trading decisions.

Benefits of Membership

- The organisation of meetings on a broad range of technical subjects encouraging the exchange of information and knowledge of technical analysis for the purpose of adding to the knowledge of the members.
- These meetings provide an excellent opportunity to meet and socialise with other traders in your local area and thus develop friendly and professional relations among financial market specialists.
- The organisation of presentations from guest speakers from around the world.
- SAMT is affiliated with the International Federation of Technical Analysts (IFTA). All SAMT members are, therefore, colleagues of IFTA and are entitled to attend the annual IFTA conference at reduced rates.
- The "IFTA Update" - the quarterly newsletter from the International Federation of Technical Analysts.
- The possibility to sit for the Certified Financial Technicians (CFTe) at a discounted rate. These exams are controlled by IFTA.
- Members receive discounts on a range of products and services related to technical analysis, including software, tuition, seminars and reference books.
- Only fully paid-up members have access to the member area and SAMT events.

Cost of Membership

- Initial one time registration fee of CHF 50.
- The membership cost for each subsequent year is CHF 150. (The total cost for the first year is CHF 200).

Membership Payments to Join or Renew

To renew your membership or to join online, log onto our website.

NEXT CFTe PREP COURSE SET FOR 10-11 SEPTEMBER 2016

An immersion course in preparation for the IFTA Certified Financial Technician (CFTe) Level I & II examinations

On Saturday and Sunday, 10-11 September 2016, the Geneva chapter of the Swiss Association of Market Technicians (SAMT) will present a two-day immersion course on advanced technical analysis and preparation for IFTA Certified Financial Technician (CFTe) Level II examination. This course is designed for professionals with market experience who are familiar with the essentials of technical analysis and also for those who would like to use more advanced technical analysis on a regular basis.

- This immersion course is also designed to prepare candidates for the upcoming CFTe Levels I and II exams which culminate in the award of an international professional qualification in technical analysis. The exam tests technical skills knowledge and understanding of ethics and the markets.
- The course will be limited to 5-10 candidates so that each person will receive the same individual level of information and instruction.
- The CFTe Level II exam incorporates a number of questions requiring essay-based analysis and answers. The candidate will demonstrate a depth of knowledge and experience in applying various methods of technical analysis.
- The exam also contains a number of different charts covering one specific market (often an equity) to be analysed, as though for a fund manager or trader.

Who Will Teach the Course?

- The course will be taught by Bruno Estier, CFTe, MFTA, MSTA; and Ron William, CMT, MSTA who are members of the Geneva chapter of SAMT. Collectively, the instructors have 50 years of experience, have technical analysis professional designations, and use technical analysis in their daily work.

How Will it Work?

- The two-day course will begin promptly at **09:00 on Saturday, 10 September**. The instructors will begin with an overview of basic technical analysis per the CFTe Level I exam.
- A sample of a CFTe Level II exam will be introduced to familiarize each candidate with each of the three sections and how best to answer the questions in the three hours allotted for the exam.
- The afternoon will focus on all aspects of technical analysis – with particular attention to subjects which will be needed to complete and hopefully pass the CFTe Level II exam.
- At the end of the day – about 18:00 – an overnight assignment will be given – similar to the chart analysis section of the CFTe Level II exam. The class will end at 18:00.
- On **Sunday morning, 11 September,** the class will review the overnight assignment before continuing with the materials needed to familiarize the participants with the information needed for the CFTe Level II exam.
- The afternoon will focus on sample CFTe Level II exam questions and sample charts which will be analysed.
- There will be a review of all subjects in the late afternoon before the course ends at 18:00.
- Sixteen hours of Immersion Training and additional pre- and post-course remote training offered.

Download the complete information brochure.

Preparation Course for the 20 October 2016 CFTe Level II Exam

When:
Saturday, 10 September &
Sunday, 11 September 2016

Where:
Geneva

Hours:
9:00 until 18:00 each day
16 hours of Immersion Training

Class Size:
5 minimum; 10 maximum

Cost:
SAMT Members: CHF 1250;
Non-members: CHF 1450

Early Bird Cost:
SAMT Members: CHF 1150
Non-members: CHF 1350

Registration Deadline:
Friday, 2 September 2016

Early Bird Deadline:
Friday, 26 August 2016

To register, contact:
ron.william@samt-org.ch

The course will be presented in English.

IFTA CERTIFIED FINANCIAL TECHNICIAN (CFTe) PROGRAM

Examinations

Passing the CFTe I and CFTe II culminates in the award of an international professional qualification in technical analysis. The exams are intended to test not only your technical skills knowledge, but your understanding of ethics and the market.

Level I: This multiple-choice exam consists of 120 questions covering a wide range of technical knowledge, but usually not involving actual experience. In preparation for the exam, candidates should use this Syllabus and Study Guide (CFTe I). This exam is currently offered in English, German, Spanish and Arabic. It will be offered in Chinese at a later date. Download the CFTe I practice (mock) examination (English) or CFTe I practice (mock) examination (Arabic).

Level II: This exam incorporates a number of questions requiring an essay based analysis and answers. For this, the candidate should demonstrate a depth of knowledge and experience in applying various methods of technical analysis. The exam provides a number of current charts covering one specific market (often an equity) to be analysed, as though for a Fund Manager.

The CFTe II is a paper and pencil exam that is offered in English, French, Italian, German, Spanish, and Arabic, bi-annually, typically in April and October. It will be offered in Chinese at a later date. This exam regularly takes place in major cities throughout the world. Additional fees apply to candidates requesting the exam in a non-English language or non-IFTA proctored exam location. IFTA will attempt to accommodate any exam location request.

In preparation for the exam, candidates should use this Syllabus and Study Guide (CFTe II). Register here for the next CFTe II on **20 October 2016**. The deadline to register for this exam is **8 September 2016**. No registrations will be accepted after this date. No registrations will be accepted after this date. Download practice (mock) CFTe II examination.

Curriculum

The program is designed for self-study. Local societies may offer preparation courses to assist potential candidates.

Exemptions

- Individuals who have successfully completed IFTA accredited certification programs through: Australian Technical Analysts Association (ATAA), Egyptian Society of Technical Analysts (ESTA), Nippon Technical Analysts Association (NTAA), and Society of Technical Analysts (STA) are exempt and may proceed directly to the MFTA program. See below for more details:
- Individuals who have successfully been awarded the Diploma in Technical Analysis (DipTA) by the Australian Technical Analysts Association (ATAA) are considered to have the equivalent of the certificate and may apply for the MFTA Program.
- Individuals who have successfully completed Levels I, II, & III of the Certified ESTA Technical Analyst Program (CETA) through the Egyptian Society of Technical Analysts (ESTA), and have been awarded the CETA diploma, are exempt from both levels and may proceed to the MFTA Program.
- Individuals who have passed Level I and Level II of the certification program offered by the Nippon Technical Analysts Association (NTAA) and have been awarded the designation of Chartered Member of the Nippon Technical Analysts Association (CMTA) are also exempt from both levels and may proceed to the MFTA Program.
- Beginning January 2013, individuals who have passed the STA Foundation and Diploma Courses offered by the Society of Technical Analysts (STA) and have been awarded the designation of Member of the Society of Technical Analysts (MSTA) are eligible to receive the CFTe certification (please contact STA's Administration for procedures) and may proceed with IFTA's MFTA Program. Prior to January 2013, holders of the Society of Technical Analysts (STA) Diploma are exempt from Level II, but must pass Level I (a multiple-choice test) before qualifying for the CFTe certification.

Additionally,

- Individuals who passed the Market Technicians Association (MTA) Chartered Market Technician (CMT) levels I and II on, or before, 28 June 2013, are eligible to receive the CFTe certification. Please submit an application and provide a pass confirmation from the MTA, including dates attained. There is a one-time application fee of $550 US. No future fees or membership requirements apply.

Cost

IFTA Member Colleagues

CFTe I	$500 US
CFTe II	$800* US

Non-Members

CFTe I	$700 US
CFTe II	$1,000* US

*Additional Fees (CFTe II only):

- $250US translation fee applies to non-English exams
- $100US applies for non-IFTA proctored exam locations

For more information on the program please email admin@ifta.org

SAMT PARTNER SOCIETIES

Groupement Suisse des Conseils en Gestion Independants (GSCGI)

CSCGI is a group of economic interests formed by specialized independent financial intermediaries who are confirmed professionals in the financial services industry. The group is open to contacts with any person interested in the business of wealth management seeking to promote dialogue with the banking partners and authorities at all levels. Their goals are to:

- Promote contacts between professionals motivated by the same desire for independence, wishing to maintain and develop relationships with counterparts.
- Find common ground for exchanging experiences and ideas, a field where diversity and novelty are prevailing.
- The enrichment of the links that can be forged on a friendly and professional level within a well defined and recognized framework to favour professional consultation and close dialogues.

www.gscgi.ch

Swiss CFA Society

The Swiss CFA Society boasts over 2,400 members in Switzerland, against barely 100 in 1996 at inception. It is the largest CFA Institute society in continental Europe. With more than 2,000 candidates taking the rigorous Chartered Financial Analyst® (CFA®) exam in Switzerland each year, the society's impact on the Swiss investment community is self-evident.

It was the first society of CFA charterholders in the EMEA region to be directly affiliated with the prestigious CFA Institute, which includes more than 110,000 members in 139 countries.

The vision of the Swiss CFA Society is to be a leader in fostering the highest level of knowledge, professionalism, and integrity in the investment business.

www.cfasociety.org/switzerland

Swiss Futures and Options Association

The Swiss Futures and Options Association (SFOA), previously the Swiss Commodities, Futures and Options Association, was founded in 1979 as a non-profit professional association for the purpose of promoting derivative financial instruments, particularly standard futures and options contracts on financial instruments and commodities, to the widest possible audience, and to serve the interests of its members. SFOA serves users of commodity and financial derivatives, as well as professionals, their institutions and the exchanges.

www.sfoa.org

International Federation of Technical Analysts (IFTA)

IFTA is a non-profit federation of 26 individual country societies who individually and jointly dedicate themselves to

- Research, education, camaraderie and dissemination of technical analysis of world markets. The IFTA societies support sharing technical analytical methodology that at its highest level is a valid, and often-indispensable element in the formulation of a reasonable basis for investment decisions.
- Promotion of the highest standards of professional conduct, international cooperation and scholarship between all its Member and Developing Societies within all arenas of technical analysis.
- Providing centralized international exchange for information and data of various financial centers while respecting individual country and Society business practices, legal structures and customs.
- Encouraging the standardization of education and testing of its constituent members in technical analysis, making sure that each individual country's security analyst licensing, legal and language /communication priorities continue to be individually accepted.
- Fostering the establishment of individual societies of technical analysts without bias in regard to race, creed or religion. It supports the need for maintaining a free and open worldwide markets under normal, and in particular crisis periods.

As a growing bridge of communication worldwide, IFTA remains open to methods of technical analysis, while encouraging the consideration and support of membership for both developing and established societies.

www.ifta.org

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